



# Satellite Remote Sensing of Surface Urban Heat Islands: Progress, Challenges, and Perspectives

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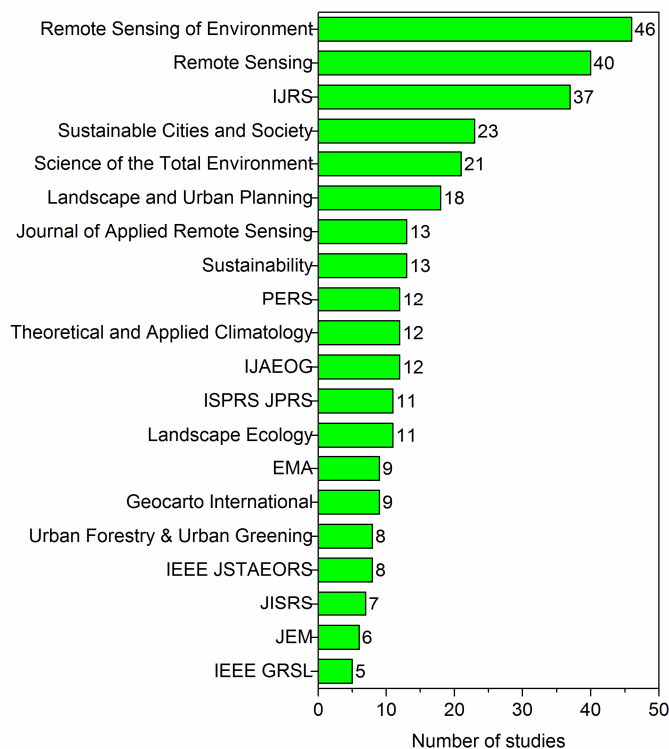
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## List of supporting materials

- Text S1: The active journals in publishing SUHI papers
- Table S1: List of the selected publications reviewed in this study

### Text S1. The active journals in publishing SUHI papers

SUHI-related researches were published in 107 different journals, suggesting a wide variety of interests of scholars from various disciplines. However, those papers were highly focused on a limited number of journals (Figure S1), particularly those in the fields of remote sensing, environment, urban landscape, and sustainability. The three dominant journals—*Remote Sensing of Environment*, *Remote Sensing*, and *International Journal of Remote Sensing*—published 123 or 25% of the total 492 articles from 1972 to the present. Papers published in the top 20 most active journals accounted for 65.4% of the total publications. Interestingly, the meteorological and atmospheric journals such as *International Journal of Climatology*, *Journal of Applied and Meteorology Climatology*, *Atmospheric Environment*, and *Journal of Geophysical Research: Atmospheres* published very few SUHI papers, though they were most productive in publishing air UHI researches [1].



**Figure S1.** Top 20 active journals of the 107 journals for the selected SUHI studies. IJRS, International Journal of Remote Sensing; PERS, Photogrammetric Engineering and Remote Sensing; IJAEOG, International Journal of Applied Earth Observation and Geoinformation; ISPRS JPRS, ISPRS Journal of Photogrammetry and Remote Sensing; EMA, Environmental Monitoring and Assessment; IEEE JSTAEORS, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing; JISRS, Journal of the Indian Society of Remote Sensing; JEM, Journal of environmental management; IEEE GRSL, IEEE Geoscience and Remote Sensing Letters.

### References

1. Huang, Q.; Lu, Y. Urban heat island research from 1991 to 2015: A bibliometric analysis. *Theoretical and Applied Climatology* **2018**, *131*, 1055-1067.



**Table S1.** List of the selected publications reviewed in this study

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
1	1972	P. K. Rao	Remote sensing of urban" heat islands" from an environmental satellite	Bulletin of the American meteorological society	ITOS-I	SUHI variations among cities	Regional	Not available	Not available
2	1977	T. N. Carlson, J. A. Augustine and F. E. Boland	Potential Application of Satellite Temperature Measurements in the Analysis of Land Use over Urban Areas	Bulletin of the American Meteorological Society	AHVR	local-scale SUHI variations	Local	Day and night	Summer
3	1978	M. Matson, E. P. McClain, D. F. McGinnis and J. A. Pritchard	Satellite Detection of Urban Heat Islands	Monthly Weather Review	AHVR	SUHI variations among cities	Regional	Nighttime	Summer
4	1979	J. C. Price	Assessment of the Urban Heat Island Effect Through the Use of Satellite Data	Monthly Weather Review	HCMM	SUHI variations among cities	Regional	Daytime	Summer
5	1980	M. Matson and R. V. Legeckis	Urban Heat Islands Detected by Satellite	Bulletin of the American Meteorological Society	AHVR	SUHI variations among cities	Regional	Not available	Not available
6	1981	Toby N. Carlson, Joseph K. Dodd, Stanley G. Benjamin, and James N. Cooper	Satellite Estimation of the Surface Energy Balance, Moisture Availability and Thermal Inertia	Journal of Applied Meteorology	HCMM	local-scale SUHI variations	Local	Day and night	Spring
7	1981	J. L. Foster J. P. Ormsby R. J. Gurney	Satellite observations of England and north-western Europe	Weather	HCMM	local-scale SUHI variations	Regional	Day and night	Summer
8	1983	Fred M. Vukovich	An analysis of the ground temperature and reflectivity pattern about St. Louis, Missouri, using HCMM satellite data	Journal of Climate and Applied Meteorology	HCMM	local-scale SUHI variations	Local	Day and night	All seasons
9	1987	S. Q. Kidder and H.-T. Wu	A multispectral study of the St. Louis area under snow-covered conditions using NOAA-7 AVHRR data	Remote Sensing of Environment	AHVR	local-scale SUHI variations	Local	Day and night	Winter
10	1988	R. C. Balling and S. W. Brazel	High-resolution surface temperature patterns in a complex urban terrain	Photogrammetric engineering and remote sensing	AHVR	local-scale SUHI variations	Local	Nighttime	Summer
11	1989	R. C. Balling and S. W. Brazel	High-Resolution Nighttime Temperature Patterns in Phoenix	Journal of the Arizona-Nevada Academy of Science	AHVR	local-scale SUHI variations	Local	Nighttime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
12	1989	J. A. Henry	Comparison of satellite, ground-based, and modeling techniques for analyzing the urban heat island	Photogrammetric Engineering and Remote Sensing	HCMM	Others	Local	Daytime	Spring, Autumn, Winter
13	1989	M. Roth, T. R. Oke and W. J. Emery	Satellite-derived urban heat islands from three coastal cities and the utilization of such data in urban climatology	International Journal of Remote Sensing	AHVR	local-scale SUHI variations	Regional	Day and night	All seasons
14	1989	Dousset	AVHRR-derived cloudiness and surface temperature patterns over the Los Angeles area and their relationship to land use	Proc., 12th Canadian Symposium on Remote Sensing Geoscience and Remote Sensing Symposium	AHVR	local-scale SUHI variations	Local	Day and night	Summer
15	1990	W. H. Carnahan and R. C. Larson	An analysis of an urban heat sink	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
16	1991	V. Caselles, M. J. López García, J. Meliá and A. J. Pérez Cueva	Analysis of the heat-island effect of the city of Valencia, Spain, through air temperature transects and NOAA satellite data	Theoretical and Applied Climatology	AHVR	surface-air UHIs	Local	Nighttime	Winter
17	1991	Dousset	Surface temperature statistics over Los Angeles: the influence of land use	Proc., [Proceedings] IGARSS'91 Remote Sensing: Global Monitoring for Earth Management	AHVR	local-scale SUHI variations	Local	Day and night	Summer
18	1992	H. H. Kim	Urban heat island	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
19	1993	K. P. Gallo, A. L. McNab, T. R. Karl, J. F. Brown, J. J. Hood and J. D. Tarpley	The Use of NOAA AVHRR Data for Assessment of the Urban Heat Island Effect	Journal of Applied Meteorology	AHVR	SUHI variations among cities	Regional	Daytime	Summer
20	1993	K. P. Gallo, A. L. McNab, T. R. Karl, J. F. Brown, J. J. Hood and J. D. Tarpley	The use of a vegetation index for assessment of the urban heat island effect	International Journal of Remote Sensing	AHVR	local-scale SUHI variations	Local	Daytime	Summer
21	1993	H.-Y. Lee	An application of NOAA AVHRR thermal data to the study of urban heat islands	Atmospheric Environment. Part B. Urban Atmosphere	AHVR	SUHI variations among cities	Regional	Daytime	Spring, Winter

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
22	1994	S. Kawashima	Relation between vegetation, surface temperature, and surface composition in the Tokyo region during winter	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Day and night	Winter
23	1994	J. E. Nichol	A GIS-based approach to microclimate monitoring in Singapore's high-rise housing estates	Photogrammetric Engineering and Remote Sensing	Landsat series	surface-air UHIs	Local	Daytime	Summer
24	1995	C. Aniello, K. Morgan, A. Busbey and L. Newland	Mapping micro-urban heat islands using LANDSAT TM and a GIS	Computers & Geosciences	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
25	1996	K. P. Gallo and J. D. Tarpley	The comparison of vegetation index and surface temperature composites for urban heat-island analysis	International Journal of Remote Sensing	AHVR	SUHI variations among cities	Regional	Daytime	Summer
26	1996	J. E. Nichol	High-Resolution Surface Temperature Patterns Related to Urban Morphology in a Tropical City: A Satellite-Based Study	Journal of Applied Meteorology	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
27	1996	J. E. Nichol	Analysis of the Urban Thermal Environment with LANDSAT Data	Environment and Planning B: Planning and Design	Landsat series	surface-air UHIs	Local	Daytime	Spring
28	1996	Lougeay, R., Brazel, A., and Hubble, M.	Monitoring intra-urban temperature patterns and associated land cover in Phoenix, Arizona using Landsat thermal data	Geocarto International	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
29	1997	C. P. Lo	Application of LandSat TM data for quality of life assessment in an urban environment	Computers, Environment and Urban Systems	Landsat series	Others	Local	Daytime	Summer
30	1997	Larson, R. C., & Carnahan, W. H	The influence of surface characteristics on urban radiant temperatures	Geocarto International	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
31	1998	K. P. Gallo and T. W. Owen	Assessment of urban heat Islands: A multi-sensor perspective for the Dallas-Ft. worth, USA region	Geocarto International	AHVR	Others	Local	Daytime	Summer
32	1998	J. E. Nichol	Visualisation of urban surface temperatures derived from satellite images	International Journal of Remote Sensing	Landsat series	Others	Local	Daytime	Spring

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
33	1998	T. W. Owen, T. N. Carlson and R. R. Gillies	An assessment of satellite remotely-sensed land cover parameters in quantitatively describing the climatic effect of urbanization	International Journal of Remote Sensing	AHVRR	Others	Local	Daytime	Summer
34	1999	K. P. Gallo and T. W. Owen	Satellite-Based Adjustments for the Urban Heat Island Temperature Bias	Journal of Applied Meteorology	AHVRR	SUHI variations among cities	Regional	Daytime	Summer, Autumn
35	1999	Carlson, T. N., and Sanchez-Azofeifa, G. A.	Satellite Remote Sensing of Land Use Changes in and around San José, Costa Rica	Remote Sensing of Environment	AHVRR	local-scale SUHI variations	Local	Daytime	Spring, Winter
36	2000	T. N. Carlson and S. Traci Arthur	The impact of land use — land cover changes due to urbanization on surface microclimate and hydrology: a satellite perspective	Global and Planetary Change	AHVRR	local-scale SUHI variations	Local	Daytime	Summer
37	2001	Q. Weng	A remote sensing — GIS evaluation of urban expansion and its impact on surface temperature in the Zhujiang Delta, China	International Journal of Remote Sensing	Landsat series	SUHI variations among cities	Regional	Daytime	Summer, Winter
38	2002	D. R. Streutker	A remote sensing study of the urban heat island of Houston, Texas	International Journal of Remote Sensing	AHVRR	Others	Local	Nighttime	All seasons
39	2002	Gallo, K. P., & Owen, T. W.	A sampling strategy for satellite sensorbased assessment of the urban heat-island bias.	International Journal of Remote Sensing	AHVRR	Others	Local	Daytime	Annual mean
40	2003	B. Dousset and F. Gourmelon	Satellite multi-sensor data analysis of urban surface temperatures and landcover	ISPRS Journal of Photogrammetry and Remote Sensing	AHVRR	local-scale SUHI variations		Day and night	Summer
41	2003	C. P. Lo	Land-Use and Land-Cover Change, Urban Heat Island Phenomenon, and Health Implications	Photogrammetric engineering and remote sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
42	2003	D. R. Streutker	Satellite-measured growth of the urban heat island of Houston, Texas	Remote Sensing of Environment	AHVRR	local-scale SUHI variations	Local	Nighttime	All seasons
43	2003	Q. H. Weng	Fractal analysis of satellite-detected urban heat island effect	Photogrammetric Engineering and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Winter
44	2003	J. S. Wilson, M. Clay, E. Martin, D. Stuckey and K. Vedder-Risch	Evaluating environmental influences of zoning in urban ecosystems with remote sensing	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
45	2004	Q. Weng and S. Yang	Managing the adverse thermal effects of urban development in a densely populated Chinese city	Journal of environmental management	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
46	2004	H.-q. Xu and B.-q. Chen	Remote sensing of the urban heat island and its changes in Xiamen City of SE China	Journal of environmental sciences (China)	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
47	2004	Weng, Q., Lu, D., and Schubring, J.	Estimation of land surface temperature-vegetation abundance relationship for urban heat island studies	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
48	2004	Zhang, X., Friedl, M. A., Schaaf, C. B., Strahler, A. H., and Schneider, A.	The footprint of urban climates on vegetation phenology	Geophysical Research Letters	MODIS	local-scale SUHI variations	Regional	Daytime	All seasons
49	2005	M. L. Jin, R. E. Dickinson and D. L. Zhang	The footprint of urban areas on global climate as characterized by MODIS	Journal of Climate	MODIS	SUHI variations among cities	Global	Day and night	Spring
50	2005	S. Kato and Y. Yamaguchi	Analysis of urban heat-island effect using ASTER and ETM+ Data: Separation of anthropogenic heat discharge and natural heat radiation from sensible heat flux	Remote Sensing of Environment	Landsat series, ASTER	local-scale SUHI variations	Local	Day and night	All seasons
51	2005	J. Nichol	Remote sensing of urban heat islands by day and night	Photogrammetric Engineering and Remote Sensing	Landsat series, ASTER	local-scale SUHI variations	Local	Day and night	Autumn
52	2005	J. Nichol and M. S. Wong	Modeling urban environmental quality in a tropical city	Landscape and Urban Planning	Landsat series	Others		Daytime	Summer
53	2005	J. H. Zhang, Y. Y. Hou, G. C. Li, H. Yan, L. M. Yang and F. M. Yao	The diurnal and seasonal characteristics of urban heat island variation in Beijing city and surrounding areas and impact factors based on remote sensing satellite data	Science in China Series D-Earth Sciences	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
54	2006	X.-L. Chen, H.-M. Zhao, P.-X. Li and Z.-Y. Yin	Remote sensing image-based analysis of the relationship between urban heat island and land use/cover changes	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Regional	Daytime	All seasons
55	2006	D. A. Hartz, L. Prashad, B. C. Hedquist, J. Golden and A. J. Brazel	Linking satellite images and hand-held infrared thermography to observed neighborhood climate conditions	Remote Sensing of Environment	ASTER	Others	Local	Day and night	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
56	2006	T. Hung, D. Uchihama, S. Ochi and Y. Yasuoka	Assessment with satellite data of the urban heat island effects in Asian mega cities	International Journal of Applied Earth Observation and Geoinformation	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
57	2006	D. Lu and Q. Weng	Spectral mixture analysis of ASTER images for examining the relationship between urban thermal features and biophysical descriptors in Indianapolis, Indiana, USA	Remote Sensing of Environment	ASTER	local-scale SUHI variations	Local	Daytime	Summer, Autumn
58	2006	R. Pongracz, J. Bartholy and Z. Dezso	Remotely sensed thermal information applied to urban climate analysis	Advances in Space Research	MODIS	local-scale SUHI variations		Day and night	All seasons
59	2006	R. Pu, P. Gong, R. Michishita and T. Sasagawa	Assessment of multi-resolution and multi-sensor data for urban surface temperature retrieval	Remote Sensing of Environment	MODIS, ASTER	local-scale SUHI variations	Local	Daytime	Spring
60	2006	L.-X. Qian, H.-S. Cui and C. Jie	Impacts of land use and cover change on land surface temperature in the Zhujiang Delta	Pedosphere	Landsat series	SUHI variations among cities	Regional	Daytime	Autumn
61	2006	C. Small	Comparative analysis of urban reflectance and surface temperature	Remote Sensing of Environment	Landsat series	local-scale SUHI variations		Daytime	Not available
62	2006	Q. Weng, D. Lu and B. Liang	Urban surface biophysical descriptors and land surface temperature variations	Photogrammetric Engineering and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
63	2006	Q. Weng and S. Yang	Urban air pollution patterns, land use, and thermal landscape: An examination of the linkage using GIS	Environmental Monitoring and Assessment	Landsat series	Others		Daytime	Summer, Winter
64	2006	G. Xian and M. Crane	An analysis of urban thermal characteristics and associated land cover in Tampa Bay and Las Vegas using Landsat satellite data	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Not available
65	2007	Y. Chen, D. Z. Sui, T. Fung and W. Dou	Fractal analysis of the structure and dynamics of a satellite-detected urban heat island	International Journal of Remote Sensing	Landsat series	Others	Local	Daytime	Summer, Autumn
66	2007	Y. Du, Z. Xie, Y. Zeng, Y. Shi and J. Wu	Impact of urban expansion on regional temperature change in the Yangtze River Delta	Journal of Geographical Sciences	AHVR, MODIS	SUHI variations among cities	Regional	Day and night	All seasons



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67	2007	G. D. Jenerette, S. L. Harlan, A. Brazel, N. Jones, L. Larsen and W. L. Stefanov	Regional relationships between surface temperature, vegetation, and human settlement in a rapidly urbanizing ecosystem	Landscape Ecology	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
68	2007	S. Kato and Y. Yamaguchi	Estimation of storage heat flux in an urban area using ASTER data	Remote Sensing of Environment	ASTER	local-scale SUHI variations	Local	Day and night	Spring, Winter
69	2007	L. M. Santana	Landsat ETM+ image applications to extract information for environmental planning in a Colombian city	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
70	2007	M. Stathopoulou and C. Cartalis	Daytime urban heat islands from Landsat ETM+ and Corine land cover data: An application to major cities in Greece	Solar Energy	Landsat series	SUHI variations among cities	Regional	Daytime	Summer
71	2007	K. Wang, J. Wang, P. Wang, M. Sparrow, J. Yang and H. Chen	Influences of urbanization on surface characteristics as derived from the Moderate-Resolution Imaging Spectroradiometer: A case study for the Beijing metropolitan area	Journal of Geophysical Research-Atmospheres	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
72	2007	R.-b. Xiao, Z.-y. Ouyang, H. Zheng, W.-f. Li, E. W. Schienke and X.-k. Wang	Spatial pattern of impervious surfaces and their impacts on land surface temperature in Beijing, China	Journal of Environmental Sciences	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
73	2007	F. Yuan and M. E. Bauer	Comparison of impervious surface area and normalized difference vegetation index as indicators of surface urban heat island effects in Landsat imagery	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
74	2007	W. Yue, J. Xu, W. Tan and L. Xu	The relationship between land surface temperature and NDVI with remote sensing: application to Shanghai Landsat 7 ETM+ data	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
75	2007	J. Zhang, Y. Wang and Z. Wang	Change analysis of land surface temperature based on robust statistics in the estuarine area of Pearl River (China) from 1990 to 2000 by Landsat TM/ETM+ data	International Journal of Remote Sensing	Landsat series	SUHI variations among cities	Regional	Daytime	Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
76	2008	Y. B. Katpatal, A. Kute and D. R. Satapathy	Surface- and air-temperature studies in relation to land use/land cover of Nagpur urban area using landsat 5 TM data	Journal of Urban Planning and Development-Asce	Landsat series	surface-air UHIs	Local	Daytime	Winter
77	2008	K. Li and Z. Yu	Comparative and Combinative Study of Urban Heat island in Wuhan City with Remote Sensing and CFD Simulation	Sensors	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
78	2008	B. Liang and Q. Weng	Multiscale analysis of census-based land surface temperature variations and determinants in Indianapolis, United States	Journal of Urban Planning and Development	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
79	2008	H. Liu and Q. Weng	Seasonal variations in the relationship between landscape pattern and land surface temperature in Indianapolis, USA	Environmental Monitoring and Assessment	ASTER	local-scale SUHI variations	Local	Daytime	All seasons
80	2008	J. E. Nichol and M. S. Wong	Spatial variability of air temperature and appropriate resolution for satellite-derived air temperature estimation	International Journal of Remote Sensing	ASTER	surface-air UHIs	Local	Nighttime	Winter
81	2008	M. A. Pena	Relationships between remotely sensed surface parameters associated with the urban heat sink formation in Santiago, Chile	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations		Daytime	Summer
82	2008	M. Tiangco, A. M. F. Lagmay and J. Argete	ASTER-based study of the night-time urban heat island effect in Metro Manila	International Journal of Remote Sensing	ASTER	local-scale SUHI variations	Local	Nighttime	Spring
83	2008	Q. Weng, H. Liu, B. Liang and D. Lu	The Spatial Variations of Urban Land Surface Temperatures: Pertinent Factors, Zoning Effect, and Seasonal Variability	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	ASTER	local-scale SUHI variations	Local	Not available	All seasons
84	2008	Q. Weng and D. Lu	A sub-pixel analysis of urbanization effect on land surface temperature and its interplay with impervious surface and vegetation coverage in Indianapolis, United States	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
85	2008	R. Xiao, Q. Weng, Z. Ouyang, W. Li, E. W. Schienke and Z. Zhang	Land surface temperature variation and major factors in Beijing, China	Photogrammetric Engineering and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
86	2008	J. Zhang and Y. Wang	Study of the Relationships between the Spatial Extent of Surface Urban Heat Islands and Urban Characteristic Factors Based on Landsat ETM plus Data	Sensors	Landsat series	SUHI variations among cities	Regional	Daytime	Winter
87	2009	R. Amiri, Q. Weng, A. Alimohammadi and S. K. Alavipanah	Spatial-temporal dynamics of land surface temperature in relation to fractional vegetation cover and land use/cover in the Tabriz urban area, Iran	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
88	2009	K. J. Bhang and S.-S. Park	Evaluation of the Surface Temperature Variation With Surface Settings on the Urban Heat Island in Seoul, Korea, Using Landsat-7 ETM+ and SPOT	Ieee Geoscience and Remote Sensing Letters	Landsat series	local-scale SUHI variations	Local	Day and night	Autumn
89	2009	S. Cheval and A. Dumitrescu	The July urban heat island of Bucharest as derived from modis images	Theoretical and Applied Climatology	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
90	2009	S. Cheval, A. Dumitrescu and A. Bell	The urban heat island of Bucharest during the extreme high temperatures of July 2007	Theoretical and Applied Climatology	MODIS	surface-air UHIs	Local	Day and night	Summer
91	2009	T. Chiu, P. Wong, S. Lam, A. Burd and J. Nichol	Urban Temperatures in Hong Kong: Thermal Environmental Safety and Implications for City Planning	Journal of Burn Care & Research	ASTER	local-scale SUHI variations	Local	Daytime	Autumn
92	2009	W. Y. Fung, K. S. Lam, J. Nichol and M. S. Wong	Derivation of Nighttime Urban Air Temperatures Using a Satellite Thermal Image	Journal of Applied Meteorology and Climatology	ASTER	surface-air UHIs	Local	Nighttime	Winter
93	2009	J. Huang, R. Wang, F. Li, W. Yang, C. Zhou, J. Jin and Y. Shi	Simulation of thermal effects due to different amounts of urban vegetation within the built-up area of Beijing, China	International Journal of Sustainable Development and World Ecology	Landsat series	Others	Local	Nighttime	Summer, Autumn
94	2009	Y. Kant, B. D. Bharath, J. Mallick, C. Atzberger and N. Kerle	Satellite-based Analysis of the Role of Land Use/Land Cover and Vegetation Density on Surface Temperature Regime of Delhi, India	Journal of the Indian Society of Remote Sensing	ASTER	local-scale SUHI variations	Local	Day and night	Autumn
95	2009	J.-j. Li, X.-r. Wang, X.-j. Wang, W.-c. Ma and H. Zhang	Remote sensing evaluation of urban heat island and its spatial pattern of the Shanghai metropolitan area, China	Ecological Complexity	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
96	2009	H. Liu and Q. Weng	Scaling Effect on the Relationship between Landscape Pattern and Land Surface Temperature: A Case Study of Indianapolis, United States	Photogrammetric Engineering and Remote Sensing	ASTER	local-scale SUHI variations	Local	Daytime	All seasons
97	2009	D. Meng, X. Li, W. Zhao and H. Gong	Quantitative exploration of the mechanisms behind the urban thermal environment in Beijing	Progress in Natural Science	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
98	2009	S. Miao, F. Chen, M. A. Lemone, M. Tewari, Q. Li and Y. Wang	An Observational and Modeling Study of Characteristics of Urban Heat Island and Boundary Layer Structures in Beijing	Journal of Applied Meteorology and Climatology	MODIS	Others		Day and night	Summer
99	2009	J. Nichol	An Emissivity Modulation Method for Spatial Enhancement of Thermal Satellite Images in Urban Heat Island Analysis	Photogrammetric Engineering and Remote Sensing	ASTER	Others	Local	Nighttime	Winter
100	2009	J. E. Nichol, W. Y. Fung, K.-s. Lam and M. S. Wong	Urban heat island diagnosis using ASTER satellite images and 'in situ' air temperature	Atmospheric Research	ASTER	surface-air UHIs	Local	Nighttime	Winter
101	2009	U. Rajasekar and Q. Weng	Application of Association Rule Mining for Exploring the Relationship between Urban Land Surface Temperature and Biophysical/Social Parameters	Photogrammetric Engineering and Remote Sensing	ASTER	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
102	2009	U. Rajasekar and Q. Weng	Spatio-temporal modelling and analysis of urban heat islands by using Landsat TM and ETM plus imagery	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
103	2009	U. Rajasekar and Q. Weng	Urban heat island monitoring and analysis using a non-parametric model: A case study of Indianapolis	Isprs Journal of Photogrammetry and Remote Sensing	MODIS	Others	Local	Day and night	All seasons
104	2009	C. Rosenzweig, W. D. Solecki, L. Parshall, B. Lynn, J. Cox, R. Goldberg, S. Hodges, S. Gaffin, R. B. Slosberg, P. Savio, F. Dunstan and M. Watson	Mitigating New York City's heat island: Integrating Stakeholder Perspectives and Scientific Evaluation	Bulletin of the American Meteorological Society	MODIS	Others	Local	Day and night	Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
105	2009	A. Smargiassi, M. S. Goldberg, C. Plante, M. Fournier, Y. Baudouin and T. Kosatsky	Variation of daily warm season mortality as a function of micro-urban heat islands	Journal of Epidemiology and Community Health	Landsat series	Others	Local	Daytime	Summer
106	2009	M. Stathopoulou and C. Cartalis	Downscaling AVHRR land surface temperatures for improved surface urban heat island intensity estimation	Remote Sensing of Environment	Landsat series, AHVRR	Others	Local	Daytime	Summer
107	2009	H. Xu, F. Ding and X. Wen	Urban Expansion and Heat Island Dynamics in the Quanzhou Region, China	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Autumn
108	2009	S. Xu	An approach to analyzing the intensity of the daytime surface urban heat island effect at a local scale	Environmental Monitoring and Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
109	2009	X. Zhang, T. Zhong, X. Feng and K. Wang	Estimation of the relationship between vegetation patches and urban land surface temperature with remote sensing	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
110	2009	X. Zhang, T. Zhong, K. Wang and Z. Cheng	Scaling of impervious surface area and vegetation as indicators to urban land surface temperature using satellite data	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
111	2009	Y. Zhang, I. O. A. Odeh and C. Han	Bi-temporal characterization of land surface temperature in relation to impervious surface area, NDVI and NDBI, using a sub-pixel image analysis	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
112	2010	A. Buyantuyev and J. Wu	Urban heat islands and landscape heterogeneity: linking spatiotemporal variations in surface temperatures to land-cover and socioeconomic patterns	Landscape Ecology	ASTER	local-scale SUHI variations	Local	Day and night	Summer, Autumn
113	2010	T.-Y. Chang, Y.-A. Liou, C.-Y. Lin, S.-C. Liu and Y.-C. Wang	Evaluation of surface heat fluxes in Chiayi plain of Taiwan by remotely sensed data	International Journal of Remote Sensing	MODIS	Others	Local	Day and night	All seasons
114	2010	X. Dai, Z. Guo, L. Zhang and D. Li	Spatio-temporal exploratory analysis of urban surface temperature field in Shanghai,	Environmental Research	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer ,

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
			China	and Risk Assessment					Autumn
115	2010	R. Fabrizi, S. Bonafoni and R. Biondi	Satellite and Ground-Based Sensors for the Urban Heat Island Analysis in the City of Rome	Remote Sensing	6	surface-air UHIs	Local	Day and night	
116	2010	Y. Hu and G. Jia	Influence of land use change on urban heat island derived from multi-sensor data	International Journal of Climatology	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
117	2010	M. L. Imhoff, P. Zhang, R. E. Wolfe and L. Bounoua	Remote sensing of the urban heat island effect across biomes in the continental USA	Remote Sensing of Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
118	2010	S. Li, Z. Zhao, M. Xie and Y. Wang	Investigating spatial non-stationary and scale-dependent relationships between urban surface temperature and environmental factors using geographically weighted regression	Environmental Modelling & Software	Landsat series	Others	Local	Daytime	Autumn
119	2010	Y. Ma, Y. Kuang and N. Huang	Coupling urbanization analyses for studying urban thermal environment and its interplay with biophysical parameters based on TM/ETM plus imagery	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
120	2010	W. Su, C. Gu and G. Yang	Assessing the Impact of Land Use/Land Cover on Urban Heat Island Pattern in Nanjing City, China	Journal of Urban Planning and Development	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
121	2010	H. Xie, N.-B. Chang, A. Daranpob and D. Prado	Assessing the long-term urban heat island in San Antonio, Texas based on moderate resolution imaging spectroradiometer/Aqua Data	Journal of Applied Remote Sensing	MODIS	local-scale SUHI variations	Local	Day and night	Summer
122	2010	H. Xu	Analysis of Impervious Surface and its Impact on Urban Heat Environment using the Normalized Difference Impervious Surface Index (NDISI)	Photogrammetric Engineering and Remote Sensing	Landsat series, ASTER	local-scale SUHI variations	Local	Daytime	Spring, Autumn
123	2010	Y. Xu, Z. Qin and H. Wan	Spatial and Temporal Dynamics of Urban Heat Island and Their Relationship with Land Cover Changes in Urbanization Process: A Case Study in Suzhou, China	Journal of the Indian Society of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
124	2010	J. Yang, P. Gong, J. Zhou, H. Huang and L. Wang	Detection of the urban heat island in Beijing using HJ-1B satellite imagery	Science China-Earth Sciences	HJ-Landsat seriesB	Others	Local	Daytime	Autumn
125	2010	P. Zhang, M. L. Imhoff, R. E. Wolfe and L. Bounoua	Characterizing urban heat islands of global settlements using MODIS and nighttime lights products	Canadian Journal of Remote Sensing	MODIS	SUHI variations among cities	Global	Day and night	All seasons
126	2010	X. Zhao, J. Huang, H. Ye, K. Wang and Q. Qiu	Spatiotemporal changes of the urban heat island of a coastal city in the context of urbanisation	International Journal of Sustainable Development and World Ecology	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
127	2010	J. Zhou, J. Li and J. Yue	Analysis of urban heat island (UHI) in the Beijing metropolitan area by time-series MODIS data	2010 IEEE International Geoscience and Remote Sensing Symposium	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
128	2011	I. J. Apolonio Callejas, A. S. de Oliveira, F. M. de Moura Santos, L. C. Durante, M. C. de Jesus Albuquerque Nogueira and P. Zeilhofer	Relationship between land use/cover and surface temperatures in the urban agglomeration of Cuiaba-Varzea Grande, Central Brazil	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
129	2011	G. Cai, M. Du and Y. Xue	Monitoring of urban heat island effect in Beijing combining ASTER and TM data	International Journal of Remote Sensing	Landsat series, ASTER	local-scale SUHI variations	Local	Daytime	All seasons
130	2011	B. Dousset, F. Gourmelon, K. Laaidi, A. Zeghnoun, E. Giraudet, P. Bretin, E. Mauri and S. Vandentorren	Satellite monitoring of summer heat waves in the Paris metropolitan area	International Journal of Climatology	AHVR	Others	Local	Day and night	Summer
131	2011	J.-H. Eum, D. Scherer, U. Fehrenbach and J.-H. Woo	Development of an urban landcover classification scheme suitable for representing climatic conditions in a densely built-up Asian megacity	Landscape and Urban Planning	Landsat series	Others	Local	Daytime	Autumn
132	2011	T. Houet and G. Pigeon	Mapping urban climate zones and quantifying climate behaviors - An application on Toulouse urban area (France)	Environmental Pollution	ASTER	Others	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
133	2011	G. Huang, W. Zhou and M. L. Cadenasso	Is everyone hot in the city? Spatial pattern of land surface temperatures, land cover and neighborhood socioeconomic characteristics in Baltimore, MD	Journal of Environmental Management	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
134	2011	M. S. Jin, W. Kessomkiat and G. Pereira	Satellite-Observed Urbanization Characters in Shanghai, China: Aerosols, Urban Heat Island Effect, and Land-Atmosphere Interactions	Remote Sensing	MODIS	Others	Local	Daytime	All seasons
135	2011	I. Keramitsoglou, C. T. Kiranoudis, G. Ceriola, Q. Weng and U. Rajasekar	Identification and analysis of urban surface temperature patterns in Greater Athens, Greece, using MODIS imagery	Remote Sensing of Environment	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
136	2011	L. Lee, L. Chen, X. Wang and J. Zhao	Use of Landsat TM/ETM+ data to analyze urban heat island and its relationship with land use/cover change	2011 International Conference on Remote Sensing, Environment and Transportation Engineering	Landsat series	local-scale SUHI variations	Local	Daytime	Summer ,Autumn
137	2011	J. Li, C. Song, L. Cao, F. Zhu, X. Meng and J. Wu	Impacts of landscape structure on surface urban heat islands: A case study of Shanghai, China	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
138	2011	B. Liang and Q. Weng	Assessing Urban Environmental Quality Change of Indianapolis, United States, by the Remote Sensing and GIS Integration	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	Landsat series	Others	Local	Daytime	Summer
139	2011	L. Liu and Y. Zhang	Urban Heat Island Analysis Using the Landsat TM Data and ASTER Data: A Case Study in Hong Kong	Remote Sensing	Landsat series, ASTER	local-scale SUHI variations	Local	Nighttime	Winter
140	2011	C. Rinner and M. Hussain	Toronto's Urban Heat Island-Exploring the Relationship between Land Use and Surface Temperature	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
141	2011	N. Schwarz, S. Lautenbach and R. Seppelt	Exploring indicators for quantifying surface urban heat islands of European cities with MODIS land surface temperatures	Remote Sensing of Environment	MODIS	SUHI variations among cities	Regional	Day and night	Summer, Winter



No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
142	2011	C. J. Tomlinson, L. Chapman, J. E. Thornes and C. J. Baker	Including the urban heat island in spatial heat health risk assessment strategies: a case study for Birmingham, UK	International journal of health geographics	MODIS	Others	Local	Nighttime	Summer
143	2011	X. Wen, X. Yang and G. Hu	Relationship Between Land Cover Ratio and Urban Heat Island from Remote Sensing and Automatic Weather Stations Data	Journal of the Indian Society of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn
144	2011	Q. Weng, U. Rajasekar and X. Hu	Modeling Urban Heat Islands and Their Relationship With Impervious Surface and Vegetation Abundance by Using ASTER Images	Ieee Transactions on Geoscience and Remote Sensing	ASTER	local-scale SUHI variations	Local	Daytime	All seasons
145	2011	J. Zhou, Y. Chen, J. Wang and W. Zhan	Maximum Nighttime Urban Heat Island (UHI) Intensity Simulation by Integrating Remotely Sensed Data and Meteorological Observations	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	MODIS	surface-air UHIs	Local	Nighttime	Summer, Winter
146	2011	W. Zhou, G. Huang and M. L. Cadenasso	Does spatial configuration matter? Understanding the effects of land cover pattern on land surface temperature in urban landscapes	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
147	2012	Z. Chen, C. Gong, J. Wu and S. Yu	The influence of socioeconomic and topographic factors on nocturnal urban heat islands: a case study in Shenzhen, China	International Journal of Remote Sensing	Landsat series, ASTER	local-scale SUHI variations	Local	Day and night	Autumn
148	2012	Y. Y. Cui and B. de Foy	Seasonal Variations of the Urban Heat Island at the Surface and the Near-Surface and Reductions due to Urban Vegetation in Mexico City	Journal of Applied Meteorology and Climatology	MODIS	surface-air UHIs	Local	Day and night	All seasons
149	2012	M. S. Jin	Developing an Index to Measure Urban Heat Island Effect Using Satellite Land Skin Temperature and Land Cover Observations	Journal of Climate	MODIS	Others	Local	Day and night	All seasons
150	2012	S. Kaya, U. G. Basar, M. Karaca and D. Z. Seker	Assessment of Urban Heat Islands Using Remotely Sensed Data	Ekoloji	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
151	2012	I. Keramitsoglou, I. A. Daglis, V. Amiridis, N. Chrysoulakis, G. Ceriola, P. Manunta, B. Maiheu, K. De Ridder, D. Lauwaet and M. Paganini	Evaluation of satellite-derived products for the characterization of the urban thermal environment	Journal of Applied Remote Sensing	Landsat series,AHVRR,MODIS,ASTER,6,8	SUHI variations among cities	Regional	Day and night	
152	2012	L. Klok, S. Zwart, H. Verhagen and E. Mauri	The surface heat island of Rotterdam and its relationship with urban surface characteristics	Resources Conservation and Recycling	Landsat series, AHVRR	local-scale SUHI variations	Local	Daytime	Summer
153	2012	X. Li, W. Zhou, Z. Ouyang, W. Xu and H. Zheng	Spatial pattern of greenspace affects land surface temperature: evidence from the heavily urbanized Beijing metropolitan area, China	Landscape Ecology	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
154	2012	Y.-y. Li, H. Zhang and W. Kainz	Monitoring patterns of urban heat islands of the fast-growing Shanghai metropolis, China: Using time-series of Landsat TM/ETM+ data	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
155	2012	Y. Liu, G. Shintaro, D. Zhuang and W. Kuang	Urban surface heat fluxes infrared remote sensing inversion and their relationship with land use types	Journal of Geographical Sciences	ASTER	local-scale SUHI variations	Local	Daytime	Summer
156	2012	C. W. Mackey, X. Lee and R. B. Smith	Remotely sensing the cooling effects of city scale efforts to reduce urban heat island	Building and Environment	Landsat series	Others	Local	Daytime	Summer
157	2012	J. Mallick and A. Rahman	Impact of population density on the surface temperature and micro-climate of Delhi	Current Science	ASTER	local-scale SUHI variations	Local	Nighttime	Autumn
158	2012	J. E. Nichol and T. P. Hang	Temporal characteristics of thermal satellite images for urban heat stress and heat island mapping	Isprs Journal of Photogrammetry and Remote Sensing	ASTER	surface-air UHIs	Local	Day and night	Summer
159	2012	I. Ogashawara and V. d. S. Brum Bastos	A Quantitative Approach for Analyzing the Relationship between Urban Heat Islands and Land Cover	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
160	2012	P. Pandey, D. Kumar, A. Prakash, J. Masih, M. Singh, S. Kumar, V. K.	A study of urban heat island and its association with particulate matter during winter months over Delhi	Science of the Total Environment	MODIS	Others	Local	Day and night	Winter

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
		Jain and K. Kumar							
161	2012	S. Peng, S. Piao, P. Ciais, P. Friedlingstein, C. Ottle, F.-M. Breon, H. Nan, L. Zhou and R. B. Myneni	Surface Urban Heat Island Across 419 Global Big Cities	Environmental Science & Technology	MODIS	SUHI variations among cities	Global	Day and night	All seasons
162	2012	M. Pichierri, S. Bonafoni and R. Biondi	Satellite air temperature estimation for monitoring the canopy layer heat island of Milan	Remote Sensing of Environment	MODIS	surface-air UHIs	Local	Day and night	Summer
163	2012	W. Su, G. Yang, S. Chen and Y. Yang	Measuring the Pattern of High Temperature Areas in Urban Greenery of Nanjing City, China	International Journal of Environmental Research and Public Health	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
164	2012	Y.-F. Su, G. M. Foody and K.-S. Cheng	Spatial non-stationarity in the relationships between land cover and surface temperature in an urban heat island and its impacts on thermally sensitive populations	Landscape and Urban Planning	AHVR	local-scale SUHI variations	Local	Daytime	Spring
165	2012	Q. Sun, Z. Wu and J. Tan	The relationship between land surface temperature and land use/land cover in Guangzhou, China	Environmental Earth Sciences	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
166	2012	R. Sun and L. Chen	How can urban water bodies be designed for climate adaptation?	Landscape and Urban Planning	ASTER	local-scale SUHI variations	Local	Daytime	Summer
167	2012	C. J. Tomlinson, L. Chapman, J. E. Thornes and C. J. Baker	Derivation of Birmingham's summer surface urban heat island from MODIS satellite images	International Journal of Climatology	MODIS	local-scale SUHI variations	Local	Nighttime	Summer
168	2012	E. A. Wentz, D. A. Quattrochi, M. Netzband and S. W. Myint	Synthesizing urban remote sensing through application, scale, data and case studies	Geocarto International	Landsat series, ASTER	local-scale SUHI variations	Local	Daytime	Spring
169	2012	K. V. Wong and S. Chaudhry	Use of Satellite Images for Observational and Quantitative Analysis of Urban Heat Islands Around the World	Journal of Energy Resources Technology-Transactions of the ASME	Landsat series	SUHI variations among cities	Global	Daytime	Summer, Autumn, Winter

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
170	2012	Y. Xiong, S. Huang, F. Chen, H. Ye, C. Wang and C. Zhu	The Impacts of Rapid Urbanization on the Thermal Environment: A Remote Sensing Study of Guangzhou, South China	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Winter
171	2012	W. Yue, Y. Liu, P. Fan, X. Ye and C. Wu	Assessing spatial pattern of urban thermal environment in Shanghai, China	Stochastic Environmental Research and Risk Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
172	2012	K. Zaksek and K. Ostir	Downscaling land surface temperature for urban heat island diurnal cycle analysis	Remote Sensing of Environment	8	SUHI variations among cities	Regional	Day and night	All seasons
173	2012	P. Zhang, M. L. Imhoff, L. Bounoua and R. E. Wolfe	Exploring the influence of impervious surface density and shape on urban heat islands in the northeast United States using MODIS and Landsat	Canadian Journal of Remote Sensing	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
174	2013	B. Ahmed, M. Kamruzzaman, X. Zhu, M. S. Rahman and K. Choi	Simulating Land Cover Changes and Their Impacts on Land Surface Temperature in Dhaka, Bangladesh	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn, Winter
175	2013	N. Clinton and P. Gong	MODIS detected surface urban heat islands and sinks: Global locations and controls	Remote Sensing of Environment	MODIS	SUHI variations among cities	Global	Day and night	All seasons
176	2013	J. P. Connors, C. S. Galletti and W. T. L. Chow	Landscape configuration and urban heat island effects: assessing the relationship between landscape characteristics and land surface temperature in Phoenix, Arizona	Landscape Ecology	ASTER	local-scale SUHI variations	Local	Nighttime	Summer
177	2013	A. J. de Lucena, O. C. Rotunno Filho, J. R. de Almeida Franca, L. d. F. Peres and L. N. Rodrigues Xavier	Urban climate and clues of heat island events in the metropolitan area of Rio de Janeiro	Theoretical and Applied Climatology	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Winter
178	2013	C. Deng and C. Wu	Examining the impacts of urban biophysical compositions on surface urban heat island: A spectral unmixing and thermal mixing approach	Remote Sensing of Environment	Landsat series	local-scale SUHI variations		Daytime	Summer
179	2013	H. Ding and W. Shi	Land-use/land-cover change and its influence on surface temperature: a case	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
			study in Beijing City						
180	2013	P. Dobrovolny	The surface urban heat island in the city of Brno (Czech Republic) derived from land surface temperatures and selected reasons for its spatial variability	Theoretical and Applied Climatology	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
181	2013	W. Essa, J. van der Kwast, B. Verbeiren and O. Batelaan	Downscaling of thermal images over urban areas using the land surface temperature-impervious percentage relationship	International Journal of Applied Earth Observation and Geoinformation	Landsat series	Others	Local	Daytime	Spring
182	2013	B. Feizizadeh and T. Blaschke	Examining Urban Heat Island Relations to Land Use and Air Pollution: Multiple Endmember Spectral Mixture Analysis for Thermal Remote Sensing	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	ASTER	local-scale SUHI variations	Local	Daytime	Summer
183	2013	S. Hamada, T. Tanaka and T. Ohta	Impacts of land use and topography on the cooling effect of green areas on surrounding urban areas	Urban Forestry & Urban Greening	ASTER	local-scale SUHI variations	Local	Day and night	Summer, Autumn
184	2013	G. Han and J. Xu	Land Surface Phenology and Land Surface Temperature Changes Along an Urban-Rural Gradient in Yangtze River Delta, China	Environmental Management	MODIS	SUHI variations among cities	Regional	Daytime	Summer
185	2013	T. Holderness, S. Barr, R. Dawson and J. Hall	An evaluation of thermal Earth observation for characterizing urban heatwave event dynamics using the urban heat island intensity metric	International Journal of Remote Sensing	AHVR	Others	Local	Daytime	Summer
186	2013	L. Hu and N. A. Brunzell	The impact of temporal aggregation of land surface temperature data for surface urban heat island (SUHI) monitoring	Remote Sensing of Environment	MODIS	Others	Local	Day and night	All seasons
187	2013	B. Huang, J. Wang, H. Song, D. Fu and K. Wong	Generating High Spatiotemporal Resolution Land Surface Temperature for Urban Heat Island Monitoring	Ieee Geoscience and Remote Sensing Letters	Landsat series, MODIS	Others	Local	Daytime	All seasons
188	2013	M. Lazzarini, P. R. Marpu and H. Ghedira	Temperature-land cover interactions: The inversion of urban heat island phenomenon	Remote Sensing of Environment	Landsat series,	local-scale SUHI variations	Local	Day and night	All seasons

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
			in desert city areas		MODIS, ASTER				
189	2013	C.-F. Li and J.-Y. Yin	A Study on Urban Thermal Field of Shanghai Using Multi-source Remote Sensing Data	Journal of the Indian Society of Remote Sensing	Landsat series, MODIS	local-scale SUHI variations	Local	Daytime	All seasons
190	2013	X. Li, W. Zhou and Z. Ouyang	Relationship between land surface temperature and spatial pattern of greenspace: What are the effects of spatial resolution?	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
191	2013	J. Mallick, A. Rahman and C. K. Singh	Modeling urban heat islands in heterogeneous land surface and its correlation with impervious surface area by using night-time ASTER satellite data in highly urbanizing city, Delhi-India	Advances in Space Research	ASTER	local-scale SUHI variations	Local	Nighttime	Autumn
192	2013	F. Meng and M. Liu	Remote-sensing image-based analysis of the patterns of urban heat islands in rapidly urbanizing Jinan, China	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
193	2013	M. Mohan, Y. Kikegawa, B. R. Gurjar, S. Bhati and N. R. Kolli	Assessment of urban heat island effect for different land use-land cover from micrometeorological measurements and remote sensing data for megacity Delhi	Theoretical and Applied Climatology	MODIS	surface-air UHIs	Local	Day and night	Spring
194	2013	S. W. Myint, E. A. Wentz, A. J. Brazel and D. A. Quattrochi	The impact of distinct anthropogenic and vegetation features on urban warming	Landscape Ecology	ASTER	local-scale SUHI variations	Local	Day and night	Summer, Winter
195	2013	Z. Qiao, G. Tian and L. Xiao	Diurnal and seasonal impacts of urbanization on the urban thermal environment: A case study of Beijing using MODIS data	Isprs Journal of Photogrammetry and Remote Sensing	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
196	2013	R. Sharma, A. Ghosh and P. K. Joshi	Analysing spatio-temporal footprints of urbanization on environment of Surat city using satellite-derived bio-physical parameters	Geocarto International	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
197	2013	R. Sun, Y. Lu, L. Chen, L. Yang and A. Chen	Assessing the stability of annual temperatures for different urban functional zones	Building and Environment	Landsat series, ASTER	local-scale SUHI variations	Local	Daytime	Summer, Autumn
198	2013	C. Y. Sung	Mitigating surface urban heat island by a tree protection policy: A case study of The Woodland, Texas, USA	Urban Forestry & Urban Greening	Landsat series	Others	Local	Daytime	
199	2013	M. S. Wong and J. E. Nichol	Spatial variability of frontal area index and its relationship with urban heat island intensity	International Journal of Remote Sensing	ASTER	local-scale SUHI variations	Local	Nighttime	Winter
200	2013	C.-D. Wu, S.-C. C. Lung and J.-F. Jan	Development of a 3-D urbanization index using digital terrain models for surface urban heat island effects	Isprs Journal of Photogrammetry and Remote Sensing	MODIS	Others	Local	Day and night	Summer
201	2013	M. Xie, Y. Wang, Q. Chang, M. Fu and M. Ye	Assessment of landscape patterns affecting land surface temperature in different biophysical gradients in Shenzhen, China	Urban Ecosystems	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
202	2013	H. Xu, D. Lin and F. Tang	The impact of impervious surface development on land surface temperature in a subtropical city: Xiamen, China	International Journal of Climatology	Landsat series	local-scale SUHI variations	Local	Daytime	
203	2013	L. Y. Xu, X. D. Xie and S. Li	Correlation analysis of the urban heat island effect and the spatial and temporal distribution of atmospheric particulates using TM images in Beijing	Environmental Pollution	Landsat series	Others	Local	Daytime	Spring, Winter
204	2013	Y. Zhang, I. O. A. Odeh and E. Ramadan	Assessment of land surface temperature in relation to landscape metrics and fractional vegetation cover in an urban/peri-urban region using Landsat data	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
205	2013	B. Zhou, D. Rybski and J. P. Kropp	On the statistics of urban heat island intensity	Geophysical Research Letters	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
206	2013	J. Zhou, Y. Chen, X. Zhang and W. Zhan	Modelling the diurnal variations of urban heat islands with multi-source satellite data	International Journal of Remote Sensing	FY-AHVR RC, MODIS	Others	Local	Day and night	All seasons
207	2014	M. P. Adams and P. L. Smith	A systematic approach to model the influence of the type and density of	Landscape and Urban Planning	MODIS	local-scale SUHI variations	Local	Day and night	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
			vegetation cover on urban heat using remote sensing						
208	2014	R. Anniballe, S. Bonafoni and M. Pichierri	Spatial and temporal trends of the surface and air heat island over Milan using MODIS data	Remote Sensing of Environment	MODIS	surface-air UHIs	Local	Day and night	Summer
209	2014	F. B. Balcik	Determining the impact of urban components on land surface temperature of Istanbul by using remote sensing indices	Environmental Monitoring and Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
210	2014	A. Chen, L. Yao, R. Sun and L. Chen	How many metrics are required to identify the effects of the landscape pattern on land surface temperature?	Ecological Indicators	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
211	2014	A. Chen, X. A. Yao, R. Sun and L. Chen	Effect of urban green patterns on surface urban cool islands and its seasonal variations	Urban Forestry & Urban Greening	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
212	2014	Y.-Y. Choi, M.-S. Suh and K.-H. Park	Assessment of Surface Urban Heat Islands over Three Megacities in East Asia Using Land Surface Temperature Data Retrieved from COMS	Remote Sensing	COMS	local-scale SUHI variations	Local	Day and night	All seasons
213	2014	B. Chun and J. M. Guldmann	Spatial statistical analysis and simulation of the urban heat island in high-density central cities	Landscape and Urban Planning	Landsat series	Others	Local	Daytime	Summer
214	2014	H. Feng, H. Liu and L. Wu	Monitoring the Relationship Between the Land Surface Temperature Change and Urban Growth in Beijing, China	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
215	2014	H. Feng, X. Zhao, F. Chen and L. Wu	Using land use change trajectories to quantify the effects of urbanization on urban heat island	Advances in Space Research	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
216	2014	G. L. Feyisa, K. Dons and H. Meilby	Efficiency of parks in mitigating urban heat island effect: An example from Addis Ababa	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
217	2014	H. C. Ho, A. Knudby, P. Sirovyak, Y. Xu, M. Hodul and S. B. Henderson	Mapping maximum urban air temperature on hot summer days	Remote Sensing of Environment	Landsat series	surface-air UHIs	Local	Daytime	Summer



No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
218	2014	F. Kong, H. Yin, P. James, L. R. Hutya and H. S. He	Effects of spatial pattern of greenspace on urban cooling in a large metropolitan area of eastern China	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
219	2014	F. Kong, H. Yin, C. Wang, G. Cavan and P. James	A satellite image-based analysis of factors contributing to the green-space cool island intensity on a city scale	Urban Forestry & Urban Greening	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
220	2014	C.-f. Li, D. Shen, J.-s. Dong, J.-y. Yin, J.-j. Zhao and D. Xue	Monitoring of urban heat island in Shanghai, China, from 1981 to 2010 with satellite data	Arabian Journal of Geosciences	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
221	2014	L. Li, Y. Tan, S. Ying, Z. Yu, Z. Li and H. Lan	Impact of land cover and population density on land surface temperature: case study in Wuhan, China	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
222	2014	W. Li, Y. Bai, Q. Chen, K. He, X. Ji and C. Han	Discrepant impacts of land use and land cover on urban heat islands: A case study of Shanghai, China	Ecological Indicators	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
223	2014	K. Liu, X. Zhang, X. Li and H. Jiang	Multiscale analysis of urban thermal characteristics: case study of Shijiazhuang, China	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
224	2014	X. Luo and W. Li	Scale effect analysis of the relationships between urban heat island and impact factors: case study in Chongqing	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
225	2014	M. Maimaitiyiming, A. Ghulam, T. Tiyip, F. Pla, P. Latorre-Carmona, U. Halik, M. Sawut and M. Caetano	Effects of green space spatial pattern on land surface temperature: Implications for sustainable urban planning and climate change adaptation	Isprs Journal of Photogrammetry and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
226	2014	F. Meng, B. Shan and M. Liu	Remote-sensing evaluation of the relationship between urban heat islands and urban biophysical descriptors in Jinan, China	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
227	2014	E. Parlow, R. Vogt and C. Feigenwinter	The urban heat island of Basel - seen from different perspectives	Erde	Landsat series	surface-air UHIs	Local	Daytime	Summer
228	2014	J. Quan, Y. Chen, W. Zhan, J. Wang, J. Voogt	Multi-temporal trajectory of the urban heat island centroid in Beijing, China based on a	Remote Sensing of Environment	MODIS	local-scale SUHI variations	Local	Day and night	All seasons

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
		and M. Wang	Gaussian volume model						
229	2014	F. Ramdani and P. Setiani	Spatio-temporal analysis of urban temperature in Bandung City, Indonesia	Urban Ecosystems	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
230	2014	J. Rhee, S. Park and Z. Lu	Relationship between land cover patterns and surface temperature in urban areas	Giscience & Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
231	2014	B. Song and K. Park	Validation of ASTER Surface Temperature Data with In Situ Measurements to Evaluate Heat Islands in Complex Urban Areas	Advances in Meteorology	ASTER	Others	Local	Day and night	Summer, Autumn
232	2014	J. Song, S. Du, X. Feng and L. Guo	The relationships between landscape compositions and land surface temperature: Quantifying their resolution sensitivity with spatial regression models	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
233	2014	J. P. Walawender, M. Szymanowski, M. J. Hajto and A. Bokwa	Land Surface Temperature Patterns in the Urban Agglomeration of Krakow (Poland) Derived from Landsat-7/ETM+ Data	Pure and Applied Geophysics	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
234	2014	Q. Weng and P. Fu	Modeling diurnal land temperature cycles over Los Angeles using downscaled GOES imagery	Isprs Journal of Photogrammetry and Remote Sensing	GOES	Others	Local	Day and night	All seasons
235	2014	Q. Weng and P. Fu	Modeling annual parameters of clear-sky land surface temperature variations and evaluating the impact of cloud cover using time series of Landsat TIR data	Remote Sensing of Environment	Landsat series	Others	Local	Daytime	All seasons
236	2014	H. Wu, L.-P. Ye, W.-Z. Shi and K. C. Clarke	Assessing the effects of land use spatial structure on urban heat islands using HJ-1B remote sensing imagery in Wuhan, China	International Journal of Applied Earth Observation and Geoinformation	HJ-B, Landsat series	local-scale SUHI variations	Local	Daytime	Summer
237	2014	Y. A. Yusuf, B. Pradhan and M. O. Idrees	Spatio-temporal Assessment of Urban Heat Island Effects in Kuala Lumpur Metropolitan City Using Landsat Images	Journal of the Indian Society of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	
238	2014	W. Zhan, W. Ju, S. Hai, G. Ferguson, J. Quan, C.	Satellite-Derived Subsurface Urban Heat Island	Environmental Science & Technology	MODIS	Others	Local	Day and night	All seasons

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
		Tang, Z. Guo and F. Kong							
239	2014	F. Zhang, X. Cai and J. E. Thornes	Birmingham's air and surface urban heat islands associated with Lamb weather types and cloudless anticyclonic conditions	Progress in Physical Geography	MODIS	surface-air UHIs	Local	Day and night	All seasons
240	2014	L. Zhao, X. Lee, R. B. Smith and K. Oleson	Strong contributions of local background climate to urban heat islands	Nature	MODIS	SUHI variations among cities	Regional	Day and night	Annual mean
241	2014	B. Zheng, S. W. Myint and C. Fan	Spatial configuration of anthropogenic land cover impacts on urban warming	Landscape and Urban Planning	ASTER	local-scale SUHI variations	Local	Day and night	Summer
242	2014	D. Zhou, S. Zhao, S. Liu, L. Zhang and C. Zhu	Surface urban heat island in China's 32 major cities: Spatial patterns and drivers	Remote Sensing of Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
243	2014	W. Zhou, Y. Qian, X. Li, W. Li and L. Han	Relationships between land cover and the surface urban heat island: seasonal variability and effects of spatial and thematic resolution of land cover data on predicting land surface temperatures	Landscape Ecology	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
244	2015	S. Alavipanah, M. Wegmann, S. Qureshi, Q. Weng and T. Koellner	The Role of Vegetation in Mitigating Urban Land Surface Temperatures: A Case Study of Munich, Germany during the Warm Season	Sustainability	MODIS	local-scale SUHI variations	Local	Daytime	Summer
245	2015	R. V. Araujo, M. R. Albertini, A. L. Costa-da-Silva, L. Suesdek, N. C. Soares Franceschi, N. M. Bastos, G. Katz, V. A. Cardoso, B. C. Castro, M. L. Capurro and V. L. Anacleto Cardoso Allegro	Sao Paulo urban heat islands have a higher incidence of dengue than other urban areas	Brazilian Journal of Infectious Diseases	Landsat series	Others	Local	Daytime	Spring, Summer, Autumn
246	2015	A. Asgarian, B. J. Amiri and Y. Sakieh	Assessing the effect of green cover spatial patterns on urban land surface temperature using landscape metrics approach	Urban Ecosystems	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
247	2015	S. Bonafoni	Spectral index utility for summer urban heating analysis	Journal of Applied Remote Sensing	Landsat series	Others	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
248	2015	S. D. Chakraborty, Y. Kant and D. Mitra	Assessment of land surface temperature and heat fluxes over Delhi using remote sensing data	Journal of Environmental Management	Landsat series, MODIS	local-scale SUHI variations	Local	Daytime	Summer, Winter
249	2015	X. Cheng, B. Wei, G. Chen, J. Li and C. Song	Influence of Park Size and Its Surrounding Urban Landscape Patterns on the Park Cooling Effect	Journal of Urban Planning and Development	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
250	2015	S. Cheval and A. Dumitrescu	The summer surface urban heat island of Bucharest (Romania) retrieved from MODIS images	Theoretical and Applied Climatology	MODIS	local-scale SUHI variations	Local	Day and night	Summer
251	2015	O. Corumluoglu and I. Asri	The effect of urban heat island on Izmir's city ecosystem and climate	Environmental Science and Pollution Research	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
252	2015	M. Dihkan, F. Karsli, A. Guneroglu and N. Guneroglu	Evaluation of surface urban heat island (SUHI) effect on coastal zone: The case of Istanbul Megacity	Ocean & Coastal Management	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
253	2015	C. Fan, S. W. Myint and B. Zheng	Measuring the spatial arrangement of urban vegetation and its impacts on seasonal surface temperatures	Progress in Physical Geography	ASTER	local-scale SUHI variations	Local	Day and night	Summer, Winter
254	2015	P. Fu and Q. Weng	Temporal Dynamics of Land Surface Temperature From Landsat TIR Time Series Images	Ieee Geoscience and Remote Sensing Letters	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
255	2015	G. Guo, Z. Wu, R. Xiao, Y. Chen, X. Liu and X. Zhang	Impacts of urban biophysical composition on land surface temperature in urban heat island clusters	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
256	2015	A. Gusso, C. Cafruni, F. Bordin, M. R. Veronez, L. Lenz and S. Crijja	Multi-Temporal Patterns of Urban Heat Island as Response to Economic Growth Management	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
257	2015	M. Heinl, A. Hammerle, U. Tappeiner and G. Leitinger	Determinants of urban-rural land surface temperature differences - A landscape scale perspective	Landscape and Urban Planning	Landsat series	SUHI variations among cities	Regional	Daytime	Summer
258	2015	L. Hu and N. A. Brunsell	A new perspective to assess the urban heat island through remotely sensed atmospheric profiles	Remote Sensing of Environment	MODIS	Others	Local	Day and night	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
259	2015	L. Hu, A. J. Monaghan and N. A. Brunsell	Investigation of Urban Air Temperature and Humidity Patterns during Extreme Heat Conditions Using Satellite-Derived Data	Journal of Applied Meteorology and Climatology	Landsat series	surface-air UHIs	Local	Day and night	Summer
260	2015	Y. Hu, G. Jia, M. Hou, X. Zhang, F. Zheng and Y. Liu	The cumulative effects of urban expansion on land surface temperatures in metropolitan Jingjintang, China	Journal of Geophysical Research-Atmospheres	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
261	2015	C. Huang and X. Ye	Spatial Modeling of Urban Vegetation and Land Surface Temperature: A Case Study of Beijing	Sustainability	Landsat series, ASTER	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
262	2015	W. Huang, Y. Zeng and S. Li	An analysis of urban expansion and its associated thermal characteristics using Landsat imagery	Geocarto International	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn
263	2015	Y. Jiang, P. Fu and Q. Weng	Downscaling GOES Land Surface Temperature for Assessing Heat Wave Health Risks	Ieee Geoscience and Remote Sensing Letters	GOES	Others	Local	Daytime	Summer
264	2015	Y. Jiang, P. Fu and Q. Weng	Assessing the Impacts of Urbanization-Associated Land Use/Cover Change on Land Surface Temperature and Surface Moisture: A Case Study in the Midwestern United States	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
265	2015	P. I. Konstantinov, M. Y. Grishchenko and M. I. Varentsov	Mapping Urban Heat Islands of Arctic Cities Using Combined Data on Field Measurements and Satellite Images Based on the Example of the City of Apatity (Murmansk Oblast)	Izvestiya Atmospheric and Oceanic Physics	MODIS	surface-air UHIs	Local	Nighttime	Winter
266	2015	K. Kourtidis, A. K. Georgoulis, S. Rapsomanikis, V. Amiridis, I. Keramitsoglou, H. Hooyberghs, B. Maiheu and D. Melas	A study of the hourly variability of the urban heat island effect in the Greater Athens Area during summer	Science of the Total Environment	AHVR, MODIS, ASTER	Others	Local	Day and night	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
267	2015	W. Kuang, Y. Liu, Y. Dou, W. Chi, G. Chen, C. Gao, T. Yang, J. Liu and R. Zhang	What are hot and what are not in an urban landscape: quantifying and explaining the land surface temperature pattern in Beijing, China	Landscape Ecology	MODIS	local-scale SUHI variations	Local	Daytime	Autumn
268	2015	M. Lazzarini, A. Molini, P. R. Marpu, T. B. M. J. Ouarda and H. Ghedira	Urban climate modifications in hot desert cities: The role of land cover, local climate, and seasonality	Geophysical Research Letters	MODIS	SUHI variations among cities	Global	Day and night	All seasons
269	2015	W. Lin, T. Yu, X. Chang, W. Wu and Y. Zhang	Calculating cooling extents of green parks using remote sensing: Method and test	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
270	2015	K. Liu, H. Su, L. Zhang, H. Yang, R. Zhang and X. Li	Analysis of the Urban Heat Island Effect in Shijiazhuang, China Using Satellite and Airborne Data	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn
271	2015	D. Lu, K. Song, S. Zang, M. Jia, J. Du and C. Ren	The Effect of Urban Expansion on Urban Surface Temperature in Shenyang, China: an Analysis with Landsat Imagery	Environmental Modeling & Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
272	2015	P. Martin, Y. Baudouin and P. Gachon	An alternative method to characterize the surface urban heat island	International Journal of Biometeorology	Landsat series	Others	Local	Daytime	Summer
273	2015	M. Mohan and A. Kandya	Impact of urbanization and land-use/land-cover change on diurnal temperature range: A case study of tropical urban airshed of India using remote sensing data	Science of the Total Environment	MODIS	local-scale SUHI variations	Local	Day and night	Annual mean
274	2015	Q. Nie and J. Xu	Understanding the effects of the impervious surfaces pattern on land surface temperature in an urban area	Frontiers of Earth Science	Landsat series	local-scale SUHI variations	Local	Daytime	Not available
275	2015	J. O. Odindi, V. Bangamwabo and O. Mutanga	Assessing the Value of Urban Green Spaces in Mitigating Multi-Seasonal Urban Heat using MODIS Land Surface Temperature (LST) and Landsat 8 data	International Journal of Environmental Research	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
276	2015	J. Pan	Analysis of human factors on urban heat island and simulation of urban thermal environment in Lanzhou city, China	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
277	2015	K. Raghavan, V. Mandla and S. Franco	Influence of urban areas on environment: Special reference to building materials and temperature anomalies using geospatial technology	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
278	2015	Z. Ren, H. Zheng, X. He, D. Zhang and X. Yu	Estimation of the Relationship Between Urban Vegetation Configuration and Land Surface Temperature with Remote Sensing	Journal of the Indian Society of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
279	2015	N. Schwarz and A. M. Manceur	Analyzing the Influence of Urban Forms on Surface Urban Heat Islands in Europe	Journal of Urban Planning and Development	MODIS	SUHI variations among cities	Regional	Day and night	Summer
280	2015	G. Shen, A. N. Ibrahim, Z. Wang, C. Ma and J. Gong	Spatial-temporal land-use/land-cover dynamics and their impacts on surface temperature in Chongming Island of Shanghai, China	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
281	2015	L. Shen, X. Guo and K. Xiao	Spatiotemporally characterizing urban temperatures based on remote sensing and GIS analysis: a case study in the city of Saskatoon (SK, Canada)	Open Geosciences	Landsat series, MODIS	surface-air UHIs	Local	Daytime	All seasons
282	2015	L. Sheng, D. Lu and J. Huang	Impacts of land-cover types on an urban heat island in Hangzhou, China	International Journal of Remote Sensing	HJ- B, Landsat series	surface-air UHIs	Local	Daytime	Spring
283	2015	H. Sun, Y. Chen and W. Zhan	Comparing surface- and canopy-layer urban heat islands over Beijing using MODIS data	International Journal of Remote Sensing	MODIS	surface-air UHIs	Local	Day and night	All seasons
284	2015	O. Van Nguyen, K. Kawamura, D. P. Trong, Z. Gong and E. Suwandana	Temporal change and its spatial variety on land surface temperature and land use changes in the Red River Delta, Vietnam, using MODIS time-series imagery	Environmental monitoring and assessment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
285	2015	J. Wang, B. Huang, D. Fu and P. M. Atkinson	Spatiotemporal Variation in Surface Urban Heat Island Intensity and Associated Determinants across Major Chinese Cities	Remote Sensing	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
286	2015	Q. Xie and Z. Zhou	IMPACT OF URBANIZATION ON URBAN HEAT ISLAND EFFECT BASED ON TM IMAGERY IN WUHAN, CHINA	Environmental Engineering and Management Journal	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
287	2015	B. Yang, F. Meng, X. Ke and C. Ma	The Impact Analysis of Water Body Landscape Pattern on Urban Heat Island: A Case Study of Wuhan City	Advances in Meteorology	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
288	2015	Y. Zhang, H. Balzter, C. Zou, H. Xu and F. Tang	Characterizing bi-temporal patterns of land surface temperature using landscape metrics based on sub-pixel classifications from Landsat TM/ETM	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
289	2015	Y. Zhang, A. Harris and H. Balzter	Characterizing fractional vegetation cover and land surface temperature based on sub-pixel fractional impervious surfaces from Landsat TM/ETM	International Journal of Remote Sensing	Landsat series	Others	Local	Daytime	Spring, Summer
290	2015	D. Zhou, S. Zhao, L. Zhang, G. Sun and Y. Liu	The footprint of urban heat island effect in China	Scientific Reports	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
291	2016	A. Ayanlade	Seasonality in the daytime and night-time intensity of land surface temperature in a tropical city area	Science of the Total Environment	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
292	2016	J. A. Azevedo, L. Chapman and C. L. Muller	Quantifying the Daytime and Night-Time Urban Heat Island in Birmingham, UK: A Comparison of Satellite Derived Land Surface Temperature and High Resolution Air Temperature Observations	Remote Sensing	MODIS	surface-air UHIs	Local	Day and night	Summer
293	2016	H. Bahi, H. Rhinane, A. Bensalmia, U. Fehrenbach and D. Scherer	Effects of Urbanization and Seasonal Cycle on the Surface Urban Heat Island Patterns in the Coastal Growing Cities: A Case Study of Casablanca, Morocco	Remote Sensing	Landsat series, MODIS	local-scale SUHI variations	Local	Day and night	All seasons
294	2016	T. Bao, X. Li, J. Zhang, Y. Zhang and S. Tian	Assessing the Distribution of Urban Green Spaces and its Anisotropic Cooling Distance on Urban Heat Island Pattern in Baotou, China	Isprs International Journal of Geo-Information	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
295	2016	S. A. Benz, P. Bayer, F. M. Goettsche, F. S. Olesen and P. Blum	Linking Surface Urban Heat Islands with Groundwater Temperatures	Environmental Science & Technology	MODIS	Others	Local	Day and night	All seasons



No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
296	2016	M. Bokaie, M. K. Zarkesh, P. D. Arasteh and A. Hosseini	Assessment of Urban Heat Island based on the relationship between land surface temperature and Land Use/Land Cover in Tehran	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
297	2016	V. Bourscheidt, O. Pinto, Jr. and K. P. Naccarato	The effects of Sao Paulo urban heat island on lightning activity: Decadal analysis (1999-2009)	Journal of Geophysical Research-Atmospheres	MODIS	Others	Local	Day and night	All seasons
298	2016	Y. Cai, H. Zhang, P. Zheng and W. Pan	Quantifying the Impact of Land use/Land Cover Changes on the Urban Heat Island: A Case Study of the Natural Wetlands Distribution Area of Fuzhou City, China	Wetlands	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
299	2016	C. Cao, X. Lee, S. Liu, N. Schultz, W. Xiao, M. Zhang and L. Zhao	Urban heat islands in China enhanced by haze pollution	Nature Communications	MODIS	SUHI variations among cities	Regional	Day and night	Annual mean
300	2016	V. R. Chejarla, P. K. Maheshuni and V. R. Mandla	Quantification of LST and CO2 levels using Landsat-8 thermal bands on urban environment	Geocarto International	Landsat series	surface-air UHIs	Local	Daytime	Spring
301	2016	L. Chen, R. Jiang and W.-N. Xiang	Surface Heat Island in Shanghai and Its Relationship with Urban Development from 1989 to 2013	Advances in Meteorology	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
302	2016	Y. Cui, X. Xu, J. Dong and Y. Qin	Influence of Urbanization Factors on Surface Urban Heat Island Intensity: A Comparison of Countries at Different Developmental Phases	Sustainability	MODIS	SUHI variations among cities	Global	Not available	Not available
303	2016	D. Das Majumdar and A. Biswas	Quantifying land surface temperature change from LISA clusters: An alternative approach to identifying urban land use transformation	Landscape and Urban Planning	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
304	2016	K. Deilami, M. Kamruzzaman and J. F. Hayes	Correlation or Causality between Land Cover Patterns and the Urban Heat Island Effect? Evidence from Brisbane, Australia	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Not available

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
305	2016	H. Du, D. Wang, Y. Wang, X. Zhao, F. Qin, H. Jiang and Y. Cai	Influences of land cover types, meteorological conditions, anthropogenic heat and urban area on surface urban heat island in the Yangtze River Delta Urban Agglomeration	Science of the Total Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
306	2016	S. Du, Z. Xiong, Y.-C. Wang and L. Guo	Quantifying the multilevel effects of landscape composition and configuration on land surface temperature	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
307	2016	X. Feng and S. W. Myint	Exploring the effect of neighboring land cover pattern on land surface temperature of central building objects	Building and Environment	ASTER	local-scale SUHI variations	Local	Daytime	Summer
308	2016	P. Fu and Q. Weng	Consistent land surface temperature data generation from irregularly spaced Landsat imagery	Remote Sensing of Environment	Landsat series	surface-air UHIs	Local	Daytime	All seasons
309	2016	P. Fu and Q. Weng	A time series analysis of urbanization induced land. use and land cover change and its impact on land surface temperature with Landsat imagery	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
310	2016	L. Gawuc and J. Struzewska	Impact of MODIS Quality Control on Temporally Aggregated Urban Surface Temperature and Long-Term Surface Urban Heat Island Intensity	Remote Sensing	MODIS	Others	Local	Day and night	All seasons
311	2016	J. Geletic, M. Lehnert and P. Dobrovolny	Land Surface Temperature Differences within Local Climate Zones, Based on Two Central European Cities	Remote Sensing	Landsat series, ASTER	local-scale SUHI variations	Local	Daytime	Spring, Summer
312	2016	G. Guo, X. Zhou, Z. Wu, R. Xiao and Y. Chen	Characterizing the impact of urban morphology heterogeneity on land surface temperature in Guangzhou, China	Environmental Modelling & Software	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
313	2016	S. Haashemi, Q. Weng, A. Darvishi and S. K. Alavipanah	Seasonal Variations of the Surface Urban Heat Island in a Semi-Arid City	Remote Sensing	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
314	2016	P. Hao, Z. Niu, Y. Zhan, Y. Wu, L. Wang and Y.	Spatiotemporal changes of urban impervious surface area and land surface	Giscience & Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
		Liu	temperature in Beijing from 1990 to 2014						
315	2016	H. C. Ho, A. Knudby, Y. Xu, M. Hodul and M. Aminipouri	A comparison of urban heat islands mapped using skin temperature, air temperature, and apparent temperature (Humidex), for the greater Vancouver area	Science of the Total Environment	Landsat series	surface-air UHIs	Local	Daytime	Summer
316	2016	L. Hu, A. Monaghan, J. A. Voogt and M. Barlage	A first satellite-based observational assessment of urban thermal anisotropy	Remote Sensing of Environment	MODIS	Others	Local	Day and night	Summer
317	2016	F. Huang, W. Zhan, J. Voogt, L. Hu, Z. Wang, J. Quan, W. Ju and Z. Guo	Temporal upscaling of surface urban heat island by incorporating an annual temperature cycle model: A tale of two cities	Remote Sensing of Environment	MODIS	Others	Local	Day and night	All seasons
318	2016	G. Huang and M. L. Cadenasso	People, landscape, and urban heat island: dynamics among neighborhood social conditions, land cover and surface temperatures	Landscape Ecology	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
319	2016	H. Kandel, A. Melesse and D. Whitman	An analysis on the urban heat island effect using radiosonde profiles and Landsat imagery with ground meteorological data in South Florida	International Journal of Remote Sensing	Landsat series	SUHI variations among cities	Regional	Daytime	Summer
320	2016	N. Kikon, P. Singh, S. K. Singh and A. Vyas	Assessment of urban heat islands (UHI) of Noida City, India using multi-temporal satellite data	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
321	2016	J.-H. Kim, D. Gu, W. Sohn, S.-H. Kil, H. Kim and D.-K. Lee	Neighborhood Landscape Spatial Patterns and Land Surface Temperature: An Empirical Study on Single-Family Residential Areas in Austin, Texas	International Journal of Environmental Research and Public Health	Landsat series	local-scale SUHI variations	Local	Nighttime	Summer
322	2016	X. Li, W. Li, A. Middel, S. L. Harlan, A. J. Brazel and B. L. Turner, II	Remote sensing of the surface urban heat island and land architecture in Phoenix, Arizona: Combined effects of land composition and configuration and cadastral-demographic-economic factors	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
323	2016	G. Liu, Q. Zhang, G. Li and D. M. Doronzo	Response of land cover types to land surface temperature derived from Landsat-5 TM in Nanjing Metropolitan Region, China	Environmental Earth Sciences	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
324	2016	K. Liu, H. Su, X. Li, W. Wang, L. Yang and H. Liang	Quantifying Spatial-Temporal Pattern of Urban Heat Island in Beijing: An Improved Assessment Using Land Surface Temperature (LST) Time Series Observations From LANDSAT, MODIS, and Chinese New Satellite GaoFen-1	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	Landsat series, MODIS	local-scale SUHI variations	Local	Nighttime	Spring, Summer, Autumn
325	2016	Q. Ma, J. Wu and C. He	A hierarchical analysis of the relationship between urban impervious surfaces and land surface temperatures: spatial scale dependence, temporal variations, and bioclimatic modulation	Landscape Ecology	Landsat series	SUHI variations among cities	Regional	Day and night	Summer, Winter
326	2016	W. Ma, L. Zhou, H. Zhang, Y. Zhang and X. Dai	Air temperature field distribution estimations over a Chinese mega-city using MODIS land surface temperature data: the case of Shanghai	Frontiers of Earth Science	MODIS	surface-air UHIs	Local	Day and night	All seasons
327	2016	W. Mao, X. Wang, J. Cai and M. Zhu	Multi-dimensional histogram-based information capacity analysis of urban heat island effect using Landsat 8 data	Remote Sensing Letters	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
328	2016	A. Mathew, S. Khandelwal and N. kaul	Spatial and temporal variations of urban heat island effect and the effect of percentage impervious surface area and elevation on land surface temperature: Study of Chandigarh city, India	Sustainable Cities and Society	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
329	2016	A. Mathew, S. Sreekumar, S. Khandelwal, N. Kaul and R. Kumar	Prediction of surface temperatures for the assessment of urban heat island effect over Ahmedabad city using linear time series model	Energy and Buildings	MODIS	Others		Day and night	Spring, Winter
330	2016	E. K. Melaas, J. A. Wang, D. L. Miller and M. A. Friedl	Interactions between urban vegetation and surface urban heat islands: a case study in the Boston metropolitan region	Environmental Research Letters	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
331	2016	D. Meng, S. Yang, H. Gong, X. Li and J. Zhang	Assessment of thermal environment landscape over five megacities in China based on Landsat 8	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn
332	2016	M. Morabito, A. Crisci, A. Messeri, S. Orlandini, A. Raschi, G. Maracchi and M. Munafo	The impact of built-up surfaces on land surface temperatures in Italian urban areas	Science of the Total Environment	MODIS	local-scale SUHI variations	Local	Day and night	Autumn, Winter
333	2016	A. K. Nassar, G. A. Blackburn and J. D. Whyatt	Dynamics and controls of urban heat sink and island phenomena in a desert city: Development of a local climate zone scheme using remotely-sensed inputs	International Journal of Applied Earth Observation and Geoinformation	Landsat series, MODIS	local-scale SUHI variations	Local	Day and night	All seasons
334	2016	L. H. Nguyen and G. M. Henebry	Urban Heat Islands as Viewed by Microwave Radiometers and Thermal Time Indices	Remote Sensing	AMSR-E, AMSRAH VRR	SUHI variations among cities	Regional	Day and night	Spring , Summer ,Autumn
335	2016	Q. Nie, W. Man, Z. Li and Y. Huang	Spatiotemporal Impact of Urban Impervious Surface on Land Surface Temperature in Shanghai, China	Canadian Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Autumn, Winter
336	2016	Q. Nie, J. Xu and W. Man	Long-range cross-correlation between urban impervious surfaces and land surface temperatures	Frontiers of Earth Science	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Autumn, Winter
337	2016	J. Pan	Area Delineation and Spatial-Temporal Dynamics of Urban Heat Island in Lanzhou City, China Using Remote Sensing Imagery	Journal of the Indian Society of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
338	2016	J. Peng, P. Xie, Y. Liu and J. Ma	Urban thermal environment dynamics and associated landscape pattern factors: A case study in the Beijing metropolitan region	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
339	2016	J. Quan, W. Zhan, Y. Chen, M. Wang and J. Wang	Time series decomposition of remotely sensed land surface temperature and investigation of trends and seasonal variations in surface urban heat islands	Journal of Geophysical Research-Atmospheres	MODIS	local-scale SUHI variations	Local	Nighttime	All seasons
340	2016	A. Sekertekin, S. H. Kutoglu and S. Kaya	Evaluation of spatio-temporal variability in Land Surface Temperature: A case study of Zonguldak, Turkey	Environmental Monitoring and Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
341	2016	H. T. Shahraiyini, S. Sodoudi, A. El-Zafarany, T. Abou El Seoud, H. Ashraf and K. Krone	A Comprehensive Statistical Study on Daytime Surface Urban Heat Island during Summer in Urban Areas, Case Study: Cairo and Its New Towns	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
342	2016	H. Shen, L. Huang, L. Zhang, P. Wu and C. Zeng	Long-term and fine-scale satellite monitoring of the urban heat island effect by the fusion of multi-temporal and multi-sensor remote sensed data: A 26-year case study of the city of Wuhan in China	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
343	2016	Y. Song and C. Wu	Examining the impact of urban biophysical composition and neighboring environment on surface urban heat island effect	Advances in Space Research	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
344	2016	M. Tomaszewska and G. M. Henebry	Urban-Rural Contrasts in Central-Eastern European Cities Using a MODIS 4 Micron Time Series	Remote Sensing	MODIS	Others	Local		
345	2016	L. Tu, Z. Qin, W. Li, J. Geng, L. Yang, S. Zhao, W. Zhan and F. Wang	Surface urban heat island effect and its relationship with urban expansion in Nanjing, China	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
346	2016	C. Wang, S. W. Myint, Z. Wang and J. Song	Spatio-Temporal Modeling of the Urban Heat Island in the Phoenix Metropolitan Area: Land Use Change Implications	Remote Sensing	MODIS	local-scale SUHI variations	Local	Day and night	Summer
347	2016	J. Wang, Q. Zhan and H. Guo	The Morphology, Dynamics and Potential Hotspots of Land Surface Temperature at a Local Scale in Urban Areas	Remote Sensing	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
348	2016	J. Wang, Q. Zhan, H. Guo and Z. Jin	Characterizing the spatial dynamics of land surface temperature-impervious surface fraction relationship	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
349	2016	K. Ward, S. Lauf, B. Kleinschmit and W. Endlicher	Heat waves and urban heat islands in Europe: A review of relevant drivers	Science of the Total Environment	MODIS	SUHI variations among cities	Regional	Day and night	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
350	2016	M. S. Wong, F. Peng, B. Zou, W. Z. Shi and G. J. Wilson	Spatially Analyzing the Inequity of the Hong Kong Urban Heat Island by Socio-Demographic Characteristics	International Journal of Environmental Research and Public Health	Landsat series	Others	Local	Daytime	Autumn
351	2016	S. Zareie, H. Khosravi, A. Nasiri and M. Dastorani	Using Landsat Thematic Mapper (TM) sensor to detect change in land surface temperature in relation to land use change in Yazd, Iran	Solid Earth	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
352	2016	H. Zhang, X.-M. Jing, J.-Y. Chen, J.-J. Li and B. Schwegler	Characterizing Urban Fabric Properties and Their Thermal Effect Using QuickBird Image and Landsat 8 Thermal Infrared (TIR) Data: The Case of Downtown Shanghai, China	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
353	2016	M. Zhao, H. Cai, Z. Qiao and X. Xu	Influence of urban expansion on the urban heat island effect in Shanghai	International Journal of Geographical Information Science	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn
354	2016	S. Zhao, D. Zhou and S. Liu	Data concurrency is required for estimating urban heat island intensity	Environmental Pollution	MODIS	SUHI variations among cities	Regional	Day and night	Summer, Winter
355	2016	D. Zhou, L. Zhang, L. Hao, G. Sun, Y. Liu and C. Zhu	Spatiotemporal trends of urban heat island effect along the urban development intensity gradient in China	Science of the Total Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
356	2016	D. Zhou, L. Zhang, D. Li, D. Huang and C. Zhu	Climate-vegetation control on the diurnal and seasonal variations of surface urban heat islands in China	Environmental Research Letters	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
357	2016	Zhou, D., D. Li, G. Sun, L. Zhang, Y. Liu, and L. Hao	Contrasting effects of urbanization and agriculture on surface temperature in eastern China	Journal of Geophysical Research: Atmospheres	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
358	2017	J. M. Ali, S. H. Marsh and M. J. Smitha	A comparison between London and Baghdad surface urban heat islands and possible engineering mitigation solution	Sustainable Cities and Society	Landsat series, AHVRR	local-scale SUHI variations	Local	Daytime	Spring, Summer
359	2017	A. Ayanlade	Variations in urban surface temperature: an assessment of land use change impacts over Lagos metropolis	Weather	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
360	2017	B. Bechtel, K. Zaksek, J. Ossenbruegge, G.	Towards a satellite based monitoring of urban air temperatures	Sustainable Cities and Society	8	surface-air UHIs	Local	Day and night	All seasons

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
		Kaveckis and J. Boehner							
361	2017	N. Benas, N. Chrysoulakis and C. Cartalis	Trends of urban surface temperature and heat island characteristics in the Mediterranean	Theoretical and Applied Climatology	MODIS	SUHI variations among cities	Regional	Nighttime	Annual mean
362	2017	C. Berger, J. Rosentreter, M. Voltersen, C. Baumgart, C. Schmullius and S. Hese	Spatio-temporal analysis of the relationship between 2D/3D urban site characteristics and land surface temperature	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
363	2017	S. Bonafoni, G. Baldinelli and P. Verducci	Sustainable strategies for smart cities: Analysis of the town development effect on surface urban heat island through remote sensing methodologies	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
364	2017	S. Bonafoni, G. Baldinelli, P. Verducci and A. Presciutti	Remote Sensing Techniques for Urban Heating Analysis: A Case Study of Sustainable Construction at District Level	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
365	2017	G. Cai, Y. Liu and M. Du	Impact of the 2008 Olympic Games on urban thermal environment in Beijing, China from satellite images	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
366	2017	T. Chen, X. Zhang and R. Niu	The Relationship between Urban Land Surface Material Fractions and Brightness Temperature Based on MESMA	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
367	2017	W. Chen, Y. Zhang, C. Pengwang and W. Gao	Evaluation of Urbanization Dynamics and its Impacts on Surface Heat Islands: A Case Study of Beijing, China	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
368	2017	X. Chen and Y. Zhang	Impacts of urban surface characteristics on spatiotemporal pattern of land surface temperature in Kunming of China	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
369	2017	Y. Chen and S. Yu	Impacts of urban landscape patterns on urban thermal variations in Guangzhou, China	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn



No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
370	2017	Y.-C. Chen, H.-W. Chiu, Y.-F. Su, Y.-C. Wu and K.-S. Cheng	Does urbanization increase diurnal land surface temperature variation? Evidence and implications	Landscape and Urban Planning	MODIS	local-scale SUHI variations	Local	Day and night	Summer
371	2017	H. Du, W. Cai, Y. Xu, Z. Wang, Y. Wang and Y. Cai	Quantifying the cool island effects of urban green spaces using remote sensing Data	Urban Forestry & Urban Greening	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
372	2017	A. Elmes, J. Rogan, C. Williams, S. Ratick, D. Nowak and D. Martin	Effects of urban tree canopy loss on land surface temperature magnitude and timing	Isprs Journal of Photogrammetry and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
373	2017	R. C. Estoque and Y. Murayama	Monitoring surface urban heat island formation in a tropical mountain city using Landsat data (1987-2015)	Isprs Journal of Photogrammetry and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
374	2017	R. C. Estoque, Y. Murayama and S. W. Myint	Effects of landscape composition and pattern on land surface temperature: An urban heat island study in the megacities of Southeast Asia	Science of the Total Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Autumn
375	2017	C. Fan, S. W. Myint, S. Kaplan, A. Middel, B. Zheng, A. Rahman, H.-P. Huang, A. Brazel and D. G. Blumberg	Understanding the Impact of Urbanization on Surface Urban Heat Islands-A Longitudinal Analysis of the Oasis Effect in Subtropical Desert Cities	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
376	2017	E. A. Gage and D. J. Cooper	Urban forest structure and land cover composition effects on land surface temperature in a semi-arid suburban area	Urban Forestry & Urban Greening	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
377	2017	E. A. Gage and D. J. Cooper	Relationships between landscape pattern metrics, vertical structure and surface urban Heat Island formation in a Colorado suburb	Urban Ecosystems	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
378	2017	C. S. Greene and A. A. Millward	Getting closure: The role of urban forest canopy density in moderating summer surface temperatures in a large city	Urban Ecosystems	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
379	2017	S. Guha, H. Govil and S. Mukherjee	Dynamic analysis and ecological evaluation of urban heat islands in Raipur city, India	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
380	2017	L. Henits, L. Mucsi and C. M. Liska	Monitoring the changes in impervious surface ratio and urban heat island intensity between 1987 and 2011 in Szeged, Hungary	Environmental Monitoring and Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
381	2017	M. E. Hereher	Retrieving spatial variations of land surface temperatures from satellite data - Cairo region, Egypt	Geocarto International	MODIS	local-scale SUHI variations	Local	Daytime	Annual mean
382	2017	W. Huang, J. Li, Q. Guo, L. R. Mansaray, X. Li and J. Huang	A Satellite-Derived Climatological Analysis of Urban Heat Island over Shanghai during 2000-2013	Remote Sensing	MODIS	surface-air UHIs	Local	Day and night	All seasons
383	2017	M. Jain, A. P. Dimri and D. Niyogi	Land-Air Interactions over Urban-Rural Transects Using Satellite Observations: Analysis over Delhi, India from 1991-2016	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
384	2017	M.-J. Jun, J.-I. Kim, H.-J. Kim, C.-H. Yeo and J.-Y. Hyun	Effects of Two Urban Development Strategies on Changes in the Land Surface Temperature: Infill versus Suburban New Town Development	Journal of Urban Planning and Development	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
385	2017	R. Kumar, V. Mishra, J. Buzan, R. Kumar, D. Shindell and M. Huber	Dominant control of agriculture and irrigation on urban heat island in India	Scientific Reports	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
386	2017	L. Li, X. Huang, J. Li and D. Wen	Quantifying the Spatiotemporal Trends of Canopy Layer Heat Island (CLHI) and Its Driving Factors over Wuhan, China with Satellite Remote Sensing	Remote Sensing	MODIS	surface-air UHIs	Local	Day and night	Summer, Winter
387	2017	W. Li, Q. Cao, K. Lang and J. Wu	Linking potential heat source and sink to urban heat island: Heterogeneous effects of landscape pattern on land surface temperature	Science of the Total Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
388	2017	X. Li, Y. Zhou, G. R. Asrar, M. Imhoff and X. Li	The surface urban heat island response to urban expansion: A panel analysis for the conterminous United States	Science of the Total Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
389	2017	W. Liao, X. Liu, D. Wang and Y. Sheng	The Impact of Energy Consumption on the Surface Urban Heat Island in China's 32 Major Cities	Remote Sensing	MODIS	SUHI variations among cities	Regional	Day and night	Annual mean

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
390	2017	W. Liu, J. Feddema, L. Hu, A. Zung and N. Brunsell	Seasonal and Diurnal Characteristics of Land Surface Temperature and Major Explanatory Factors in Harris County, Texas	Sustainability	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
391	2017	Y. Liu, J. Peng and Y. Wang	Diversification of Land Surface Temperature Change under Urban Landscape Renewal: A Case Study in the Main City of Shenzhen, China	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
392	2017	A. Majkowska, L. Kolendowicz, M. Polrolniczak, J. Hauke and B. Czernecki	The urban heat island in the city of Poznan as derived from Landsat 5 TM	Theoretical and Applied Climatology	Landsat series	surface-air UHIs	Local	Daytime	Spring, Summer
393	2017	A. Mathew, S. Khandelwal and N. Kaul	Investigating spatial and seasonal variations of urban heat island effect over Jaipur city and its relationship with vegetation, urbanization and elevation parameters	Sustainable Cities and Society	MODIS	local-scale SUHI variations	Local	Nighttime	All seasons
394	2017	V. Miles and I. Esau	Seasonal and Spatial Characteristics of Urban Heat Islands (UHIs) in Northern West Siberian Cities	Remote Sensing	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
395	2017	N. Mostofi and M. Hasanlou	Feature selection of various land cover indices for monitoring Surface Heat Island in Tehran city using Landsat 8 imagery	Journal of Environmental Engineering and Landscape Management	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
396	2017	S. Mukherjee, P. K. Joshi and R. D. Garg	Analysis of urban built-up areas and surface urban heat island using downscaled MODIS derived land surface temperature data	Geocarto International	MODIS	SUHI variations among cities	Regional	Daytime	Autumn
397	2017	T. D. Mushore, J. Odindi, T. Dube and O. Mutanga	Understanding the relationship between urban outdoor temperatures and indoor air-conditioning energy demand in Zimbabwe	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Winter
398	2017	T. D. Mushore, J. Odindi, T. Dube and O. Mutanga	Prediction of future urban surface temperatures using medium resolution satellite data in Harare metropolitan city, Zimbabwe	Building and Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
399	2017	S. Nguyen-Thanh, C.-F. Chen, C.-R. Chen, T. Bui-Xuan and V. Tran-Hau	Assessment of urbanization and urban heat islands in Ho Chi Minh City, Vietnam using Landsat data	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
400	2017	M. Ranagalage, R. C. Estoque and Y. Murayama	An Urban Heat Island Study of the Colombo Metropolitan Area, Sri Lanka, Based on Landsat Data (1997-2017)	Isprs International Journal of Geo-Information	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
401	2017	A. Rasul, H. Balzter and C. Smith	Applying a normalized ratio scale technique to assess influences of urban expansion on land surface temperature of the semi-arid city of Erbil	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
402	2017	E. Rivera, X. Antonio-Nemiga, G. Origel-Gutierrez, P. Sarricolea and S. Adame-Martinez	Spatiotemporal analysis of the atmospheric and surface urban heat islands of the Metropolitan Area of Toluca, Mexico	Environmental Earth Sciences	Landsat series	surface-air UHIs	Local	Day and night	All seasons
403	2017	V. Sagris and M. Sepp	Landsat-8 TIRS Data for Assessing Urban Heat Island Effect and Its Impact on Human Health	Ieee Geoscience and Remote Sensing Letters	Landsat series	Others	Local	Daytime	Summer
404	2017	A. A. Scott, B. Zaitchik, D. W. Waugh and K. O'Meara	Intraurban Temperature Variability in Baltimore	Journal of Applied Meteorology and Climatology	Landsat series	surface-air UHIs	Local	Daytime	Summer
405	2017	H. Shastri, B. Barik, S. Ghosh, C. Venkataraman and P. Sadavarte	Flip flop of Day-night and Summer-Winter Surface Urban Heat Island Intensity in India	Scientific Reports	MODIS	SUHI variations among cities	Regional	Day and night	Summer, Winter
406	2017	L. Sheng, X. Tang, H. You, Q. Gu and H. Hu	Comparison of the urban heat island intensity quantified by using air temperature and Landsat land surface temperature in Hangzhou, China	Ecological Indicators	Landsat series	surface-air UHIs	Local	Daytime	All seasons
407	2017	P. Singh, N. Kikon and P. Verma	Impact of land use change and urbanization on urban heat island in Lucknow city, Central India. A remote sensing based estimate	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
408	2017	R. Sun and L. Chen	Effects of green space dynamics on urban heat islands: Mitigation and diversification	Ecosystem Services	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
409	2017	J. Tang, L. Di, J. Xiao, D. Lu and Y. Zhou	Impacts of land use and socioeconomic patterns on urban heat Island	International Journal of Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
410	2017	D. X. Tran, F. Pla, P. Latorre-Carmona, S. W. Myint, M. Gaetano and H. V. Kieu	Characterizing the relationship between land use land cover change and land surface temperature	Isprs Journal of Photogrammetry and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
411	2017	A. Trlica, L. R. Hutya, C. L. Schaaf, A. Erb and J. A. Wang	Albedo, Land Cover, and Daytime Surface Temperature Variation Across an Urbanized Landscape	Earths Future	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
412	2017	H. Wang, Y. Zhang, J. Y. Tsou and Y. Li	Surface Urban Heat Island Analysis of Shanghai (China) Based on the Change of Land Use and Land Cover	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
413	2017	J. Wang and W. Ouyang	Attenuating the surface Urban Heat Island within the Local Thermal Zones through land surface modification	Journal of Environmental Management	MODIS	Others	Local	Day and night	Not available
414	2017	K. Wang, S. Jiang, J. Wang, C. Zhou, X. Wang and X. Lee	Comparing the diurnal and seasonal variabilities of atmospheric and surface urban heat islands based on the Beijing urban meteorological network	Journal of Geophysical Research-Atmospheres	MODIS	surface-air UHIs	Local	Day and night	All seasons
415	2017	Y. Wang, Q. Zhan and W. Ouyang	Impact of Urban Climate Landscape Patterns on Land Surface Temperature in Wuhan, China	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
416	2017	A. Wicki and E. Parlow	Multiple Regression Analysis for Unmixing of Surface Temperature Data in an Urban Environment	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
417	2017	D. Xu and R. Chen	Comparison of urban heat island and urban reflection in Nanjing City of China	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
418	2017	X. Xu, H. Cai, Z. Qiao, L. Wang, C. Jin, Y. Ge, L. Wang and F. Xu	Impacts of park landscape structure on thermal environment using QuickBird and Landsat images	Chinese Geographical Science	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
419	2017	C. Yang, X. He, R. Wang, F. Yan, L. Yu, K. Bu, J. Yang, L. Chang and S. Zhang	The Effect of Urban Green Spaces on the Urban Thermal Environment and Its Seasonal Variations	Forests	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
420	2017	C. Yang, X. He, F. Yan, L. Yu, K. Bu, J. Yang, L. Chang and S. Zhang	Mapping the Influence of Land Use/Land Cover Changes on the Urban Heat Island Effect-A Case Study of Changchun, China	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn
421	2017	C. Yang, X. He, L. Yu, J. Yang, F. Yan, K. Bu, L. Chang and S. Zhang	The Cooling Effect of Urban Parks and Its Monthly Variations in a Snow Climate City	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
422	2017	J. Yang, J. Sun, Q. Ge and X. Li	Assessing the impacts of urbanization-associated green space on urban land surface temperature: A case study of Dalian, China	Urban Forestry & Urban Greening	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
423	2017	Q. Yang, X. Huang and J. Li	Assessing the relationship between surface urban heat islands and landscape patterns across climatic zones in China	Scientific Reports	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
424	2017	R. Yao, L. Wang, X. Gui, Y. Zheng, H. Zhang and X. Huang	Urbanization Effects on Vegetation and Surface Urban Heat Islands in China's Yangtze River Basin	Remote Sensing	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
425	2017	R. Yao, L. Wang, X. Huang, Z. Niu, F. Liu and Q. Wang	Temporal trends of surface urban heat islands and associated determinants in major Chinese cities	Science of the Total Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
426	2017	C. Ye, M. Wang and J. Li	Derivation of the characteristics of the Surface Urban Heat Island in the Greater Toronto area using thermal infrared remote sensing	Remote Sensing Letters	Landsat series	surface-air UHIs	Local	Daytime	All seasons
427	2017	Y. Yuan, C. Xi, Q. Jing and N. Felix	Seasonal Variations of the Urban Thermal Environment Effect in a Tropical Coastal City	Advances in Meteorology	Landsat series, MODIS, HJ- B, Landsat series	local-scale SUHI variations	Local	Day and night	All seasons

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
428	2017	L. Zhang, Q. Meng, Z. Sun and Y. Sun	Spatial and Temporal Analysis of the Mitigating Effects of Industrial Relocation on the Surface Urban Heat Island over China	Isprs International Journal of Geo-Information	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Autumn
429	2017	X. Zhang, R. C. Estoque and Y. Murayama	An urban heat island study in Nanchang City, China based on land surface temperature and social-ecological variables	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
430	2017	X. Zhang, Y. Hu, G. Jia, M. Hou, Y. Fan, Z. Sun and Y. Zhu	Land surface temperature shaped by urban fractions in megacity region	Theoretical and Applied Climatology	Landsat series, MODIS	local-scale SUHI variations	Local	Daytime	Summer, Autumn
431	2017	X. Zhang, D. Wang, H. Hao, F. Zhang and Y. Hu	Effects of Land Use/Cover Changes and Urban Forest Configuration on Urban Heat Islands in a Loess Hilly Region: Case Study Based on Yan'an City, China	International Journal of Environmental Research and Public Health	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
432	2017	Y. Zhang, H. Balzter, B. Liu and Y. Chen	Analyzing the Impacts of Urbanization and Seasonal Variation on Land Surface Temperature Based on Subpixel Fractional Covers Using Landsat Images	Ieee Journal of Selected Topics in Applied Earth Observations and Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Autumn
433	2017	Y. Zhang, A. T. Murray and B. L. Turner, II	Optimizing green space locations to reduce daytime and nighttime urban heat island effects in Phoenix, Arizona	Landscape and Urban Planning	ASTER	local-scale SUHI variations	Local	Day and night	Summer
434	2017	Y. Zhang, Y. Zhan, T. Yu and X. Ren	Urban green effects on land surface temperature caused by surface characteristics: A case study of summer Beijing metropolitan region	Infrared Physics & Technology	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
435	2017	Z.-Q. Zhao, B.-J. He, L.-G. Li, H.-B. Wang and A. Darko	Profile and concentric zonal analysis of relationships between land use/land cover and land surface temperature: Case study of Shenyang, China	Energy and Buildings	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
436	2017	B. Zhou, D. Rybski and J. P. Kropp	The role of city size and urban form in the surface urban heat island	Scientific Reports	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
437	2017	W. Zhou, J. Wang and M. L. Cadenasso	Effects of the spatial configuration of trees on urban heat mitigation: A comparative study	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
438	2018	A. Azhdari, A. Soltani and M. Alidadi	Urban morphology and landscape structure effect on land surface temperature: Evidence from Shiraz, a semi-arid city	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
439	2018	A. Barat, S. Kumar, P. Kumar and P. P. Sarthi	Characteristics of Surface Urban Heat Island (SUHI) over the Gangetic Plain of Bihar, India	Asia-Pacific Journal of Atmospheric Sciences	MODIS	local-scale SUHI variations	Local	Nighttime	Winter
440	2018	T. Barbieri, F. Despini and S. Teggi	A Multi-Temporal Analyses of Land Surface Temperature Using Landsat-8 Data and Open Source Software: The Case Study of Modena, Italy	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
441	2018	Z. Cai, G. Han and M. Chen	Do water bodies play an important role in the relationship between urban form and land surface temperature?	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
442	2018	S. Chandra, D. Sharma and S. K. Dubey	Linkage of urban expansion and land surface temperature using geospatial techniques for Jaipur City, India	Arabian Journal of Geosciences	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer
443	2018	Z. Dai, J.-M. Guldmann and Y. Hu	Spatial regression models of park and land-use impacts on the urban heat island in central Beijing	Science of the Total Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
444	2018	M. Dihkan, F. Karsli, N. Guneroglu and A. Guneroglu	Evaluation of urban heat island effect in Turkey	Arabian Journal of Geosciences	Landsat series, ASTER	SUHI variations among cities	Regional	Day and night	Summer
445	2018	L. Dong, C. Mitra, S. Greer and E. Burt	The Dynamical Linkage of Atmospheric Blocking to Drought, Heatwave and Urban Heat Island in Southeastern US: A Multi-Scale Case Study	Atmosphere	Landsat series	Others	Local	Daytime	Summer
446	2018	A. Dwivedi and M. V. Khire	Application of split- window algorithm to study Urban Heat Island effect in Mumbai through land surface temperature approach	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Winter
447	2018	A. Gaur, M. K. Eichenbaum and S. P. Simonovic	Analysis and modelling of surface Urban Heat Island in 20 Canadian cities under climate and land-cover change	Journal of environmental management	MODIS	SUHI variations among cities	Regional	Day and night	All seasons



No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
448	2018	R. Gautam and M. K. Singh	Urban Heat Island Over Delhi Punches Holes in Widespread Fog in the Indo-Gangetic Plains	Geophysical Research Letters	MODIS	Others	Local	Nighttime	Winter
449	2018	I. Herbel, A.-E. Croitoru, A. V. Rus, C. F. Rosca, G. V. Harpa, A.-F. Ciupertea and I. Rus	The impact of heat waves on surface urban heat island and local economy in Cluj-Napoca city, Romania	Theoretical and Applied Climatology	Landsat series	Others	Local	Daytime	Summer
450	2018	C. Keeratikasikorn and S. Bonafoni	Satellite Images and Gaussian Parameterization for an Extensive Analysis of Urban Heat Islands in Thailand	Remote Sensing	MODIS	SUHI variations among cities	Regional	Day and night	Summer, Winter
451	2018	C. Keeratikasikorn and S. Bonafoni	Urban Heat Island Analysis over the Land Use Zoning Plan of Bangkok by Means of Landsat 8 Imagery	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
452	2018	J. Lai, W. Zhan, F. Huang, J. Quan, L. Hu, L. Gao and W. Ju	Does quality control matter? Surface urban heat island intensity variations estimated by satellite-derived land surface temperature products	Isprs Journal of Photogrammetry and Remote Sensing	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
453	2018	B. Li, W. Wang, L. Bai, W. Wang and N. Chen	Effects of spatio-temporal landscape patterns on land surface temperature: a case study of Xi'an city, China	Environmental Monitoring and Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
454	2018	H. Li, F. Meier, X. Lee, T. Chakraborty, J. Liu, M. Schaap and S. Sodoudi	Interaction between urban heat island and urban pollution island during summer in Berlin	Science of the total environment	MODIS	Others	Local	Day and night	Summer
455	2018	H. Li, Y. Zhou, X. Li, L. Meng, X. Wang, S. Wu and S. Sodoudi	A new method to quantify surface urban heat island intensity	Science of the Total Environment	MODIS	Others	Local	Day and night	All seasons
456	2018	H. Liu, Q. Zhan, C. Yang and J. Wang	Characterizing the Spatio-Temporal Pattern of Land Surface Temperature through Time Series Clustering: Based on the Latent Pattern and Morphology	Remote Sensing	MODIS	Others	Local	Daytime	Summer
457	2018	Y. Liu, X. Fang, Y. Xu, S. Zhang and Q. Luan	Assessment of surface urban heat island across China's three main urban agglomerations	Theoretical and Applied Climatology	MODIS	SUHI variations among cities	Regional	Day and night	All seasons

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
458	2018	Y. Liu, J. Peng and Y. Wang	Application of partial least squares regression in detecting the important landscape indicators determining urban land surface temperature variation	Landscape Ecology	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
459	2018	M. Madanian, A. R. Soffianian, S. S. Koupai, S. Pourmanafi and M. Momeni	Analyzing the effects of urban expansion on land surface temperature patterns by landscape metrics: a case study of Isfahan city, Iran	Environmental Monitoring and Assessment	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
460	2018	M. Madanian, A. R. Soffianian, S. S. Koupai, S. Pourmanafi and M. Momeni	The study of thermal pattern changes using Landsat-derived land surface temperature in the central part of Isfahan province	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Summer, Winter
461	2018	F. Marzban, S. Sodoudi and R. Preusker	The influence of land-cover type on the relationship between NDVI-LST and LST-T-air	International Journal of Remote Sensing	MODIS	surface-air UHIs	Local	Day and night	All seasons
462	2018	A. Mathew, S. Khandelwal and N. Kaul	Investigating spatio-temporal surface urban heat island growth over Jaipur city using geospatial techniques	Sustainable Cities and Society	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
463	2018	A. Mathew, S. Khandelwal and N. Kaul	Analysis of diurnal surface temperature variations for the assessment of surface urban heat island effect over Indian cities	Energy and Buildings	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
464	2018	A. Mathew, S. Khandelwal, N. Kaul and S. Chauhan	Analyzing the diurnal variations of land surface temperatures for surface urban heat island studies: Is time of observation of remote sensing data important?	Sustainable Cities and Society	MODIS	Others	Local	Day and night	All seasons
465	2018	Q. Meng, L. Zhang, Z. Sun, F. Meng, L. Wang and Y. Sun	Characterizing spatial and temporal trends of surface urban heat island effect in an urban main built-up area: A 12-year case study in Beijing, China	Remote Sensing of Environment	MODIS	local-scale SUHI variations	Local	Day and night	All seasons
466	2018	M. Morabito, A. Crisci, T. Georgiadis, S. Orlandini, M. Munafo, L. Congedo, P. Rota and M. Zazzi	Urban Imperviousness Effects on Summer Surface Temperatures Nearby Residential Buildings in Different Urban Zones of Parma	Remote Sensing	ASTER	local-scale SUHI variations	Local	Day and night	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
467	2018	S. Naeem, C. Cao, W. A. Qazi, M. Zamani, C. Wei, B. K. Acharya and A. U. Rehman	Studying the Association between Green Space Characteristics and Land Surface Temperature for Sustainable Urban Environments: An Analysis of Beijing and Islamabad	Isprs International Journal of Geo-Information	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
468	2018	S. Nguyen-Thanh and T. Bui-Xuan	Decadal assessment of urban sprawl and its effects on local temperature using Landsat data in Cantho city, Vietnam	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
469	2018	A. Nurwanda and T. Honjo	Analysis of Land Use Change and Expansion of Surface Urban Heat Island in Bogor City by Remote Sensing	Isprs International Journal of Geo-Information	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
470	2018	I. R. Orimoloye, S. P. Mazinyo, W. Nel and A. M. Kalumba	Spatiotemporal monitoring of land surface temperature and estimated radiation using remote sensing: human health implications for East London, South Africa	Environmental Earth Sciences	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
471	2018	J. Peng, J. Jia, Y. Liu, H. Li and J. Wu	Seasonal contrast of the dominant factors for spatial distribution of land surface temperature in urban areas	Remote Sensing of Environment	Landsat series	local-scale SUHI variations	Local	Daytime	All seasons
472	2018	J. Peng, J. Ma, Q. Liu, Y. Liu, Y. n. Hu, Y. Li and Y. Yue	Spatial-temporal change of land surface temperature across 285 cities in China: An urban-rural contrast perspective	Science of the Total Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons
473	2018	L. d. F. Peres, A. J. de Lucena, O. C. Rotunno Filho and J. R. de Almeida Franca	The urban heat island in Rio de Janeiro, Brazil, in the last 30 years using remote sensing data	International Journal of Applied Earth Observation and Geoinformation	Landsat series	local-scale SUHI variations	Local	Daytime	Annual mean
474	2018	M. Ranagalage, R. C. Estoque, X. Zhang and Y. Murayama	Spatial Changes of Urban Heat Island Formation in the Colombo District, Sri Lanka: Implications for Sustainability Planning	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Winter
475	2018	Y. Rao, Y. Xu, J. Zhang, Y. Guo and M. Fu	Does subclassified industrial land have a characteristic impact on land surface temperatures? Evidence for and implications of coal and steel processing industries in a	Ecological Indicators	Landsat series	Others	Local	Daytime	Summer

No.	Year	Authors	Title	Journal	Sensor	Research foci	Study scale	Time-of-day	Study Season
			Chinese mining city						
476	2018	J. S. Silva, R. M. da Silva and C. A. Guimaraes Santos	Spatiotemporal impact of land use/land cover changes on urban heat islands: A case study of Paco do Lumiar, Brazil	Building and Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Spring, Summer, Autumn
477	2018	Y. Sun, C. Gao, J. Li, W. Li and R. Ma	Examining urban thermal environment dynamics and relations to biophysical composition and configuration and socio-economic factors: A case study of the Shanghai metropolitan region	Sustainable Cities and Society	Landsat series	local-scale SUHI variations	Local	Day and night	All seasons
478	2018	Y. Tang, C. Lan and H. Feng	Effect analysis of land-use pattern with landscape metrics on an urban heat island	Journal of Applied Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
479	2018	M. Tarawally, W. Xu, W. Hou and T. D. Mushore	Comparative Analysis of Responses of Land Surface Temperature to Long-Term Land Use/Cover Changes between a Coastal and Inland City: A Case of Freetown and Bo Town in Sierra Leone	Remote Sensing	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
480	2018	C. Wang, S. W. Myint, P. Fan, M. Stuhlmacher and J. Yang	The impact of urban expansion on the regional environment in Myanmar: a case study of two capital cities	Landscape Ecology	MODIS	local-scale SUHI variations	Local	Day and night	Annual mean
481	2018	S. Wang, Q. Ma, H. Ding and H. Liang	Detection of urban expansion and land surface temperature change using multi-temporal landsat images	Resources Conservation and Recycling	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
482	2018	X. Wang, H. Cheng, J. Xi, G. Yang and Y. Zhao	Relationship between Park Composition, Vegetation Characteristics and Cool Island Effect	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Spring
483	2018	Y. Wang, H. Du, Y. Xu, D. Lu, X. Wang and Z. Guo	Temporal and spatial variation relationship and influence factors on surface urban heat island and ozone pollution in the Yangtze River Delta, China	Science of the Total Environment	MODIS	Others	Regional	Daytime	All seasons

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484	2018	Y.-C. Wang, B. K. H. Hu, S. W. Myint, C.-C. Feng, W. T. L. Chow and P. F. Passy	Patterns of land change and their potential impacts on land surface temperature change in Yangon, Myanmar	Science of the total environment	Landsat series, MODIS	local-scale SUHI variations	Local	Day and night	Spring, Winter
485	2018	H. Xiao, M. Kopecka, S. Guo, Y. Guan, D. Cai, C. Zhang, X. Zhang and W. Yao	Responses of Urban Land Surface Temperature on Land Cover: A Comparative Study of Vienna and Madrid	Sustainability	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
486	2018	R. Yao, L. Wang, X. Huang, Y. Niu, Y. Chen and Z. Niu	The influence of different data and method on estimating the surface urban heat island intensity	Ecological Indicators	MODIS	Others	Regional	Day and night	Summer
487	2018	R. Yao, L. Wang, X. Huang, W. Zhang, J. Li and Z. Niu	Interannual variations in surface urban heat island intensity and associated drivers in China	Journal of Environmental Management	MODIS	SUHI variations among cities	Regional	Day and night	Summer, Winter
488	2018	C. Yin, M. Yuan, Y. Lu, Y. Huang and Y. Liu	Effects of urban form on the urban heat island effect based on spatial regression model	Science of the Total Environment	Landsat series	local-scale SUHI variations	Local	Daytime	Autumn
489	2018	Z. Yu, X. Guo, Y. Zeng, M. Koga and H. Vejre	Variations in land surface temperature and cooling efficiency of green space in rapid urbanization: The case of Fuzhou city, China	Urban Forestry & Urban Greening	Landsat series	local-scale SUHI variations	Local	Daytime	Summer
490	2018	Y. Zhang, P. Jiang, H. Zhang and P. Cheng	Study on Urban Heat Island Intensity Level Identification Based on an Improved Restricted Boltzmann Machine	International Journal of Environmental Research and Public Health	Landsat series	Others	Local	Daytime	Summer
491	2018	Y. Zhang and S. Liang	Impacts of land cover transitions on surface temperature in China based on satellite observations	Environmental Research Letters	MODIS	SUHI variations among cities	Regional	Day and night	Annual mean
492	2018	D. Zhou, S. Bonafoni, L. Zhang and R. Wang	Remote sensing of the urban heat island effect in a highly populated urban agglomeration area in East China	Science of the Total Environment	MODIS	SUHI variations among cities	Regional	Day and night	All seasons

