Special Issue

Passive Techniques for Sustainable Buildings and Cities

Message from the Guest Editors

Passive technologies, following the principle of “natural harmony”, and using natural resources such as winds, solar radiation, and temperature with less or no rely on active energies, can also provide a comfortable environment. Advance passive techniques like passive cooling and daytime radiative cooling, have exhibited great cooling potential. Integrating more natural resources during the design of buildings and cities based on the variable geographical conditions is significant for improving the urban thermal environment, but still requires a comprehensive and interdisciplinary. We explore the advanced passive techniques and strategies for fighting against urban overheating, which follows but are not limited to the below topics,

- Innovation passive materials and techniques;
- Impact of passive techniques on the performance on buildings and cities;
- Method to design the local-based building and city environment;
- Sustainable urban–rural planning and design;
- Economic, low-carbon and risk assessment for innovation passive techniques.

Guest Editors

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Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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