Space-time assessment of extreme precipitation in Cuba between 1980 and 2019 from Multi-Source Weighted-Ensemble precipitation dataset

Gleisis Alvarez-Socorro [1], José Carlos Fernández-Alvarez [1,2], Rogert Sorí [2,3], Albenis Pérez-Alarcón [1,2], Raquel Nieto [2] and Luis Gimeno [2,*]

[1] Departamento de Meteorología, Instituto Superior de Tecnologías y Ciencias Aplicadas, Universidad de la Habana, La Habana 10400, Cuba; gleisis1998@gmail.com (G.A-S)

[2] Centro de Investigación Mariña, Universidade de Vigo, Environmental Physics Laboratory (EPhysLab), Campus As Lagoas s/n, Ourense, 32004, Spain; jose.carlos.fernandez.alvarez@uvigo.es (J.C.F.–A.); rogert.sori@uvigo.es (R.S.); albenis.perez.alarcon@uvigo.es (A.P.–A.); rnieto@uvigo.es (R.S)

[3] Instituto Dom Luiz, Faculdade de Ciências da Universidade de Lisboa, 1749–016 Campo Grande, Portugal

* Correspondence: l.gimeno@uvigo.es (L.G.)

Table S1. Ranking of the first 50 extreme precipitation events for the dry period (1980-2019).

Year	M (mm)	A (%)	R
9 November 2008	97.03	52.27	5071.78
February 3 1998	49.91	85.37	4260.82
6 November 1981	72.24	56.31	4067.80
27 February 1983	47.29	84.66	4003.64
17 March 2003	47.12	56.71	2672.02
13 November 1994	89.49	29.36	2627.87
19 November 1985	33.04	78.10	2580.47
12 November 1999	26.24	95.76	2512.62
5 November 1981	72.05	32.60	2349.03
23 March 1998	21.86	99.80	2181.26
3 December 1989	37.89	54.09	2049.41
14 February 2019	21.80	78.51	1711.61
24 December 2000	22.82	74.47	1699.06
5 February 2006	30.16	55.30	1667.68
23 December 1995	18.38	89.91	1652.88
8 December 1987	17.16	94.05	1613.99
5 November 2001	41.61	38.04	1582.85
3 January 2003	35.09	44.10	1547.47
16 November 1980	41.42	36.83	1525.44
26 December 2001	23.72	63.87	1515.16
29 February 1980	14.25	97.07	1383.70
28 April 2003	26.09	49.24	1284.57
18 April 2010	21.74	58.22	1265.79
15 January 1995	15.01	82.04	1231.35
14 January 1995	17.10	71.64	1225.41
9 February 1992	15.92	74.17	1180.39
24 December 2019	25.62	44.90	1150.28
22 November 2002	18.36	61.96	1137.26
16 April 1993	30.50	37.24	1135.80

22 February 2010	19.04	59.23	1127.56
26 February 1983	18.62	57.42	1068.96
10 December 2017	21.92	48.03	1052.92
11 January 1988	16.91	60.65	1025.73
17 December 1980	30.60	32.39	991.04
13 November 1999	21.25	45.51	966.95
29 April 2012	21.38	44.10	942.86
8 November 2008	34.27	27.45	940.51
24 January 2000	12.64	74.07	936.45
15 February 1984	45.01	20.79	935.71
10 April 2019	15.74	58.43	919.69
12 December 2015	39.25	22.81	895.16
30 November 1989	25.99	34.01	883.78
26 November 1996	24.35	35.92	874.65
4 February 2006	10.84	79.62	862.87
23 December 2009	29.58	29.16	862.62
28 April 1994	50.13	16.85	844.80
22 January 2006	15.25	55.20	841.55
10 February 1992	14.39	58.32	839.12
23 February 2002	17.28	48.44	837.11
5 February 2012	13.54	61.65	834.92

Table S2. Ranking of the first 50 extreme precipitation events for the rainy period (1980-2019).

Year	M (mm)	A (%)	R
18 October 1996	118.46	69.83	8271.68
14 October 1999	80.90	80.93	6546.99
1 June 1988	96.36	65.99	6359.44
9 September 2017	85.89	72.45	6222.75
29 September 1998	106.45	53.78	5725.29
8 July 2005	73.71	69.53	5124.93
8 September 2008	69.39	57.42	3984.29
25 September 1998	80.64	42.18	3401.42
21 June 1995	48.62	69.02	3355.48
9 July 2005	75.13	42.99	3229.62
31 May 1993	34.02	86.48	2942.15
15 October 1999	50.32	53.68	2701.58
9 September 2008	47.28	56.51	2671.73
29 September 2010	38.01	65.29	2481.76
22 May 1991	39.38	62.06	2443.80
28 May 2018	73.07	32.59	2381.46
17 October 1996	48.53	44.80	2174.48
10 June 1984	103.58	20.08	2080.05
21 May 1991	81.94	23.54	1928.98
5 June 1997	33.60	57.21	1922.55
3 June 2011	74.77	24.42	1825.75
5 May 2016	22.16	82.34	1824.94
21 May 1996	30.51	59.13	1804.22

6 August 1980	24.54	71.54	1755.60
2 June 1988	61.91	27.45	1699.33
17 October 2005	104.00	15.94	1658.20
21 August 2002	56.54	28.25	1597.58
22 May 1994	117.09	13.52	1583.24
8 September 2017	40.86	38.45	1571.07
16 May 2006	26.58	56.10	1491.07
17 May 2006	33.47	44.50	1489.53
10 September 2017	35.69	41.57	1483.85
26 August 2012	21.72	67.91	1474.76
30 September 2010	30.47	48.34	1472.64
31 August 1988	43.25	33.80	1461.90
11 May 1993	105.44	13.82	1457.62
16 May 2017	32.07	44.60	1430.17
25 May 1990	42.71	32.80	1400.74
7 August 1980	35.12	38.55	1353.91
11 October 1987	31.96	41.27	1319.18
23 June 1998	21.20	61.45	1302.55
29 July 2004	44.52	29.06	1293.83
25 October 2012	26.88	47.02	1264.05
28 October 2017	26.84	46.42	1246.00
13 September 2004	43.70	28.05	1225.89
26 October 2012	32.62	36.83	1201.30
23 May 2012	21.94	54.19	1189.08
27 July 2007	64.39	18.16	1169.51
13 October 1987	34.43	33.10	1139.56
5 October 2016	38.91	29.06	1130.69