



Supplement of

A paradigm of extreme rainfall pluvial floods in complex urban areas: the flood event of 15 July 2020 in Palermo (Italy)

Antonio Francipane et al.

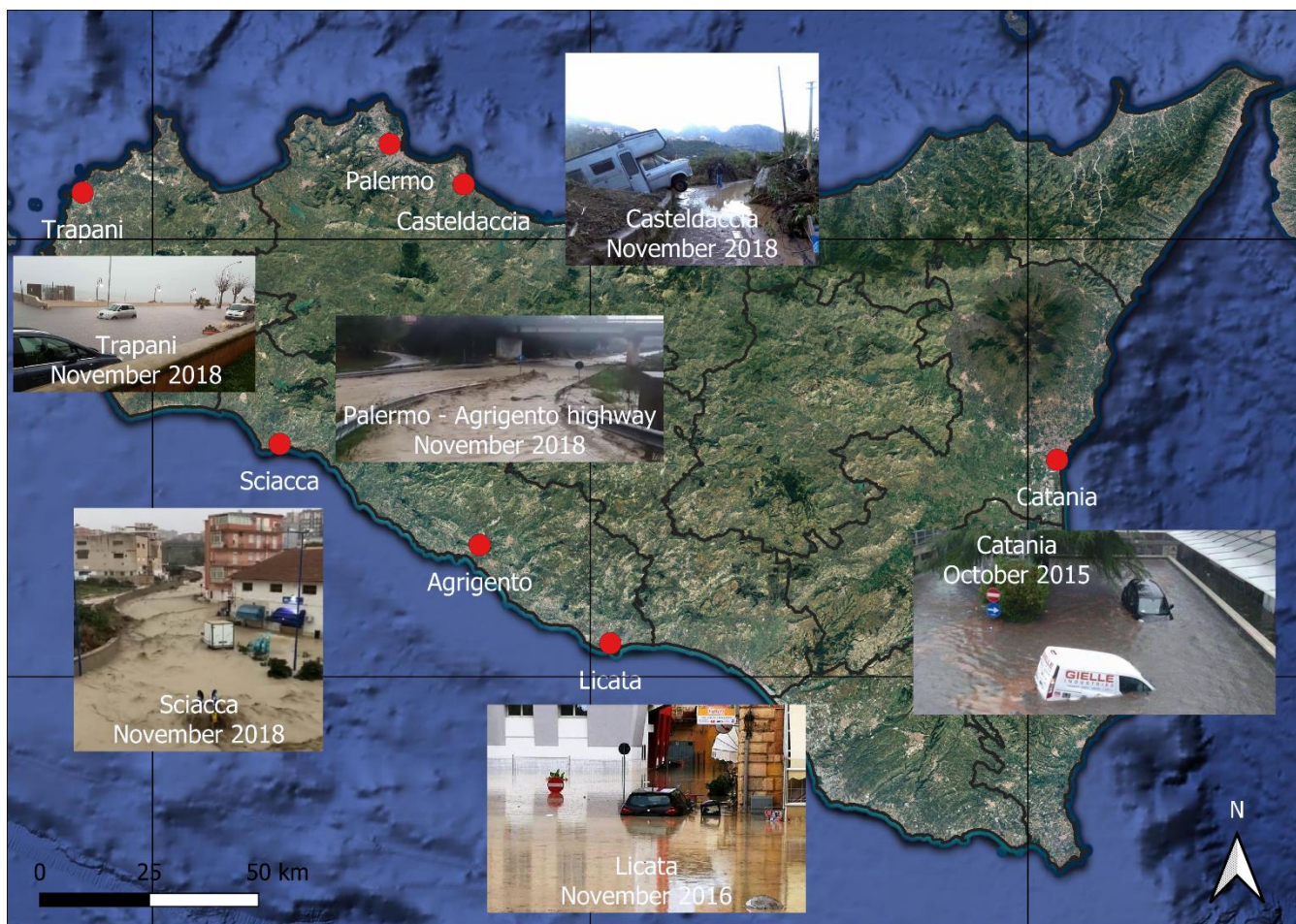
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Supplement

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Supplementary Material



10 **Figure S1.** Impacts of some floods that affected Sicily in the last years. Source aerial: © Google Maps Satellite basemap available within the QuickMapServices plugin of Quantum GIS.

Source picture “Casteldaccia – November 2018”: PalermoToday (<https://www.palermotoday.it/cronaca/strage-casteldaccia-indagati-sindaco.html>).

15 Source picture “Palermo – Agrigento highway – November 2018”: La Repubblica (https://palermo.repubblica.it/cronaca/2018/11/02/news/maltempo_allarme_tra_palermo_agrigento_e_trapani_chiuse_le_strade_per_sciacca_e_licata-210593341/).

Source picture “Trapani – November 2018”: TP24 (<https://www.tp24.it/2018/02/07/cronaca/maltempo-allagamenti-disagi-trapanese-foto-video-previsioni/117562>).

20 Source picture “Sciacca – November 2018”: Giornale di Sicilia (<https://agrigento.gds.it/foto/cronaca/2018/11/02/strade-allagate-e-piene-di-fango-ecco-sciacca-in-ginocchio-per-il-maltempo-cef54a31-a5d6-4aa4-9ef4-50c230967994/5/>).

Source picture “Licata – November 2016”: Il Sito di Sicilia (<https://www.ilsitodisicilia.it/11666-2/>).

Source picture “Catania – October 2015”: Mobilita.org Catania (<http://catania.mobilita.org/2015/10/22/catania-allagata-fermare-la-cementificazione-per-prevenire-il-rischio/>).

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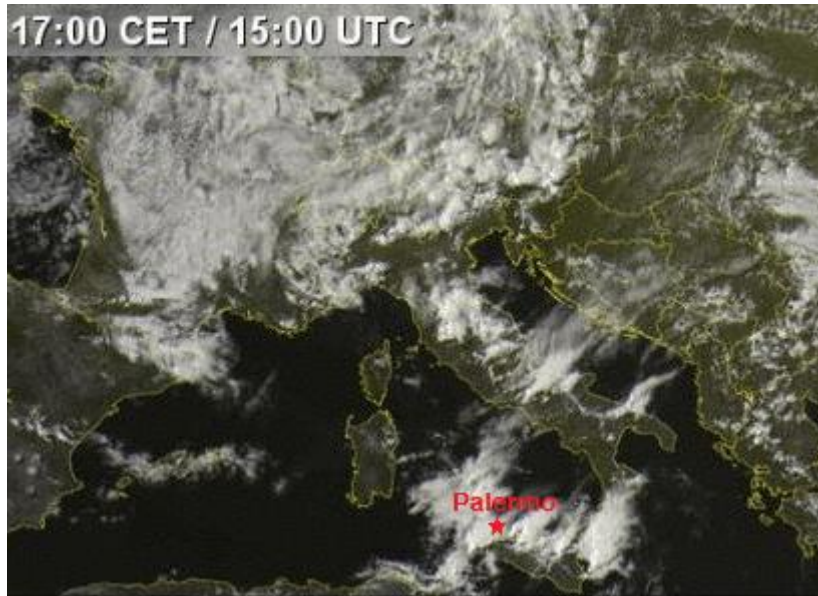
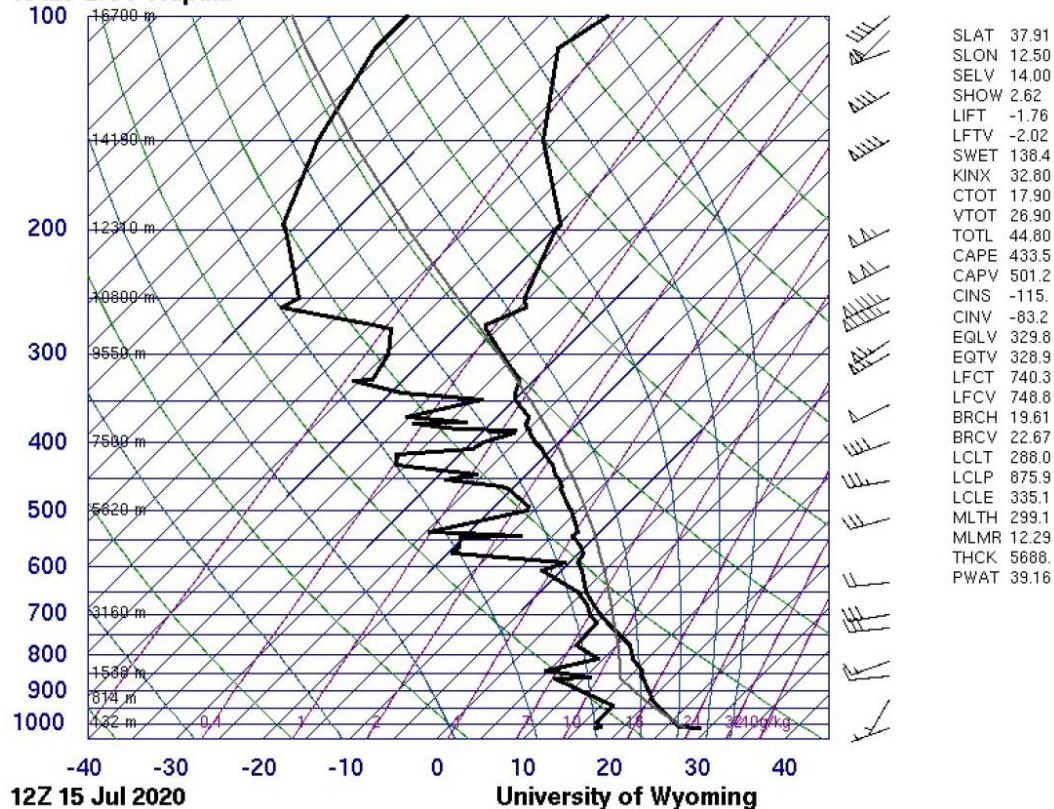


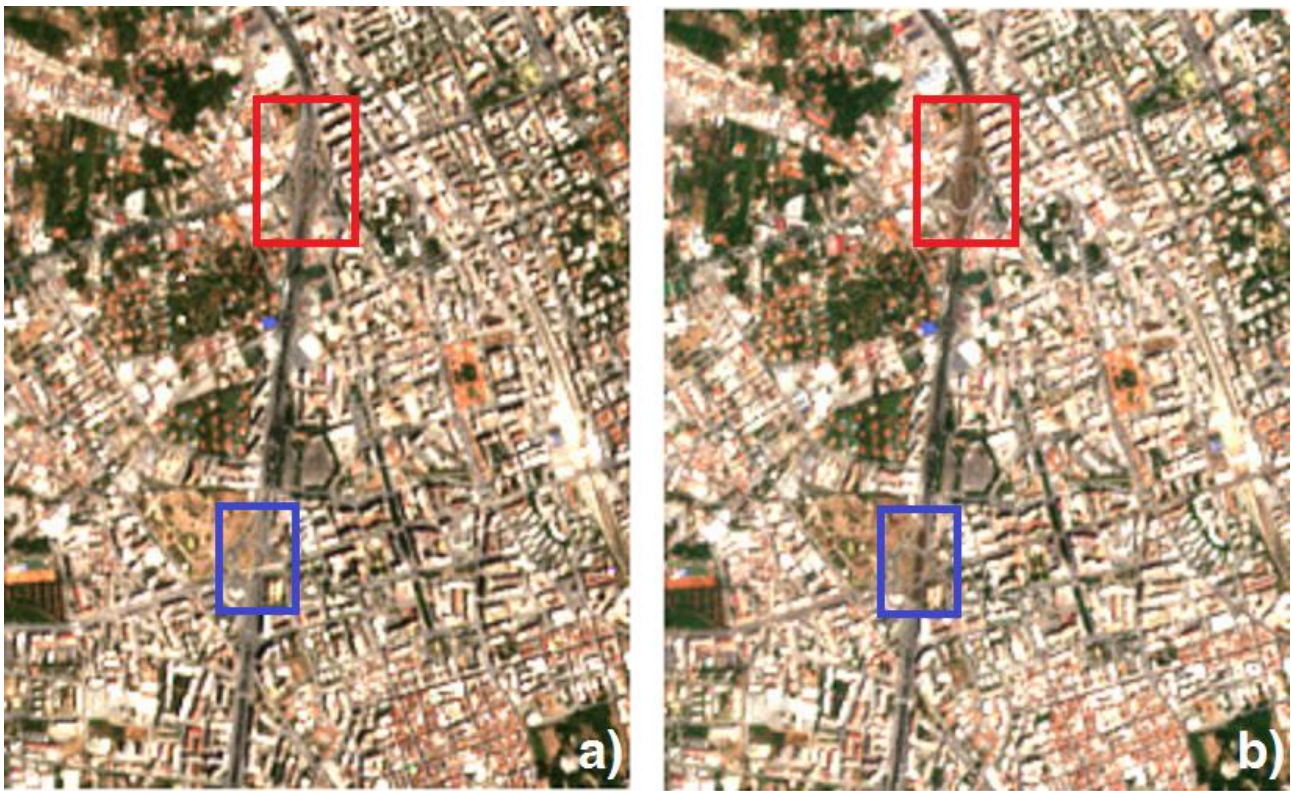
Figure S2. Thunderstorm cell observed from the Meteosat-11 project satellites (image in the visible channel) on 15 July 2020 at 17:00. Source image: EUMETSAT of the UK Met Office (<https://en.sat24.com/en/it/visual>).

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Figure S3. Thermodynamic state of the atmospheric column on 15 July 2020. Data from the radiosonde data station LICT Trapani-Birgi. Source image: University of Wyoming (<http://weather.uwyo.edu/>).



35 Figure S4. Sentinel-2 image of the a) 14 July 2020 at around 10:00 (i.e., the day before the flooding event) and 2) 16 July 2020 at around 09:50 (i.e., the day after the flooding event). The boxes blue and red indicate the underpasses Da Vinci and Michelangelo, respectively. Despite the not-optimal resolution of the images, it is possible to glimpse the traces left by the mud in the two underpasses the day after the flooding event. Source: Copernicus Open Access Hub (<https://scihub.copernicus.eu/dhus/#/home>).