

Supplement of Increasing Daily Extreme and Declining Annual Precipitation in Southern Europe: A Modeling Study on the Effects of Mediterranean Warming

Alfonso Senatore¹, Luca Furnari¹, Gholamreza Nikraves¹, Jessica Castagna¹, and Giuseppe Mendicino¹

¹Department of Environmental Engineering, University of Calabria, Rende 87036, Cosenza, Italy

Figures S1 to S20 present maps of cumulative precipitation (mm) for each of the 20 events, as observed in the Calabria region and simulated by the SST0 scenario (i.e., the hindcast simulation). All simulations employed the WRF model, forced with ERA5 boundary conditions, utilizing two one-way nested domains with a 2-km horizontal resolution of the innermost domain.

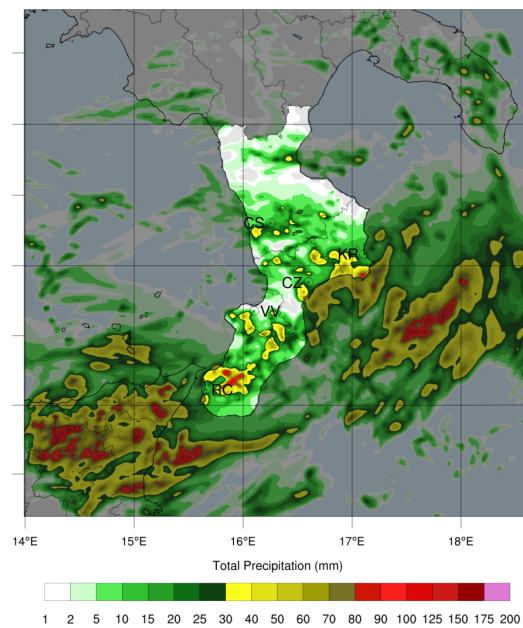
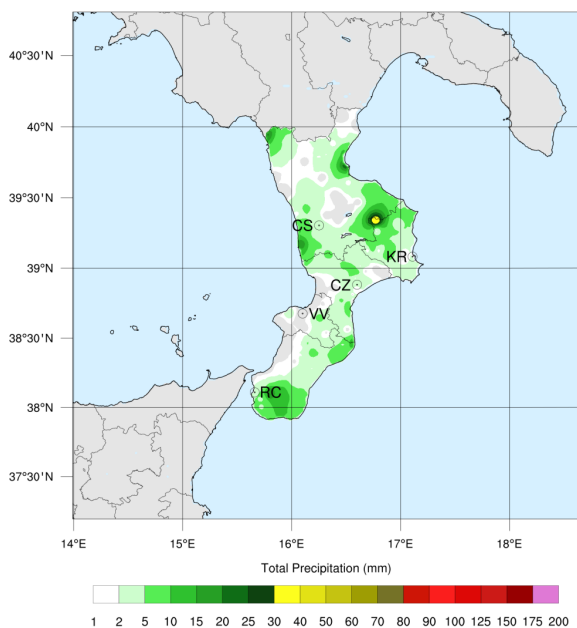


Figure 1. Cumulative precipitation for event 1: on the left, interpolated observation map; on the right, SST0 simulation.

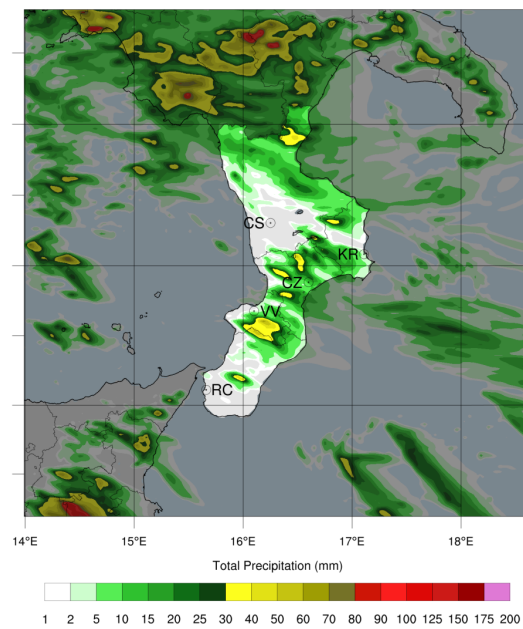
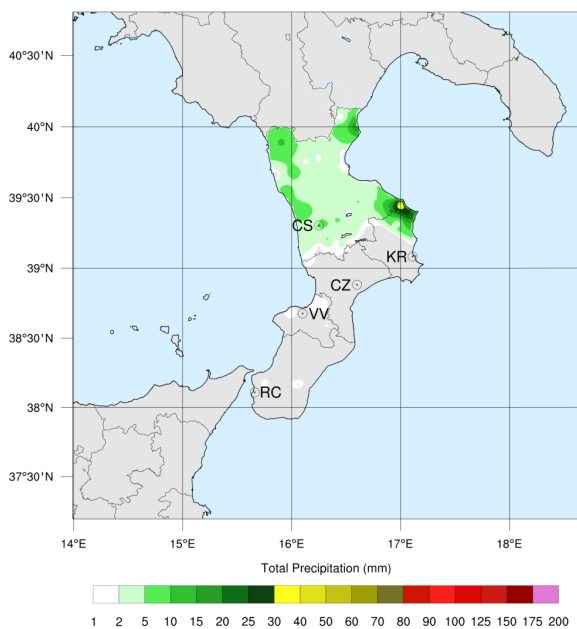


Figure 2. Cumulative precipitation for event 2: on the left, interpolated observation map; on the right, SST0 simulation.

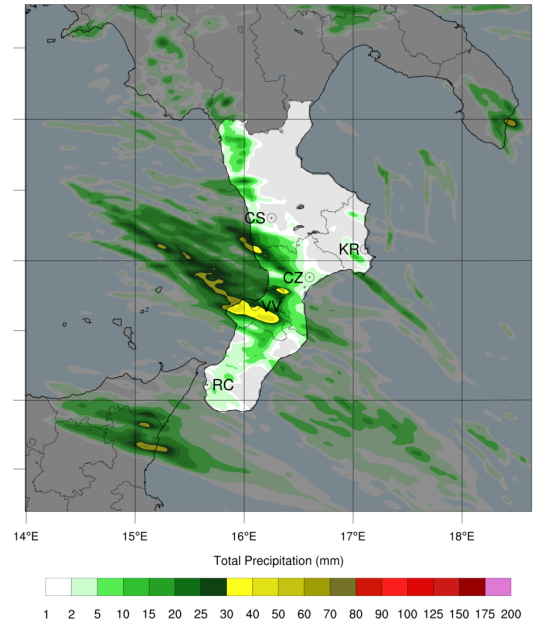
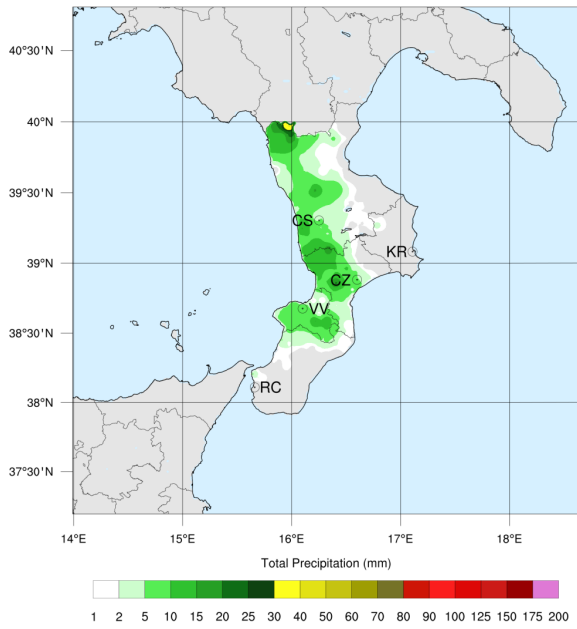


Figure 3. Cumulative precipitation for event 3: on the left, interpolated observation map; on the right, SST0 simulation.

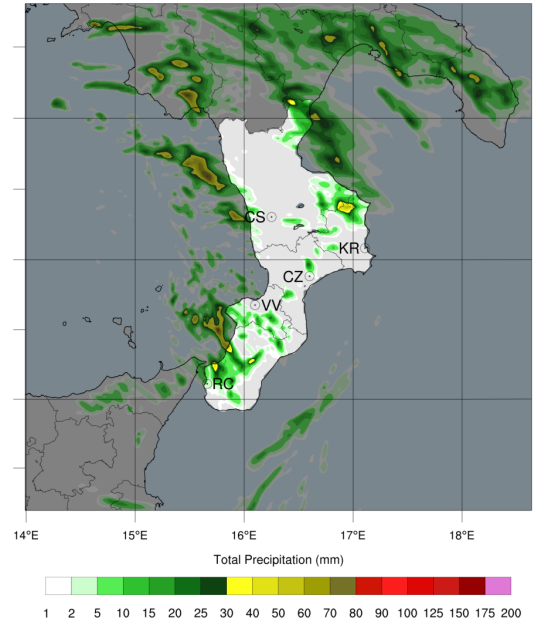
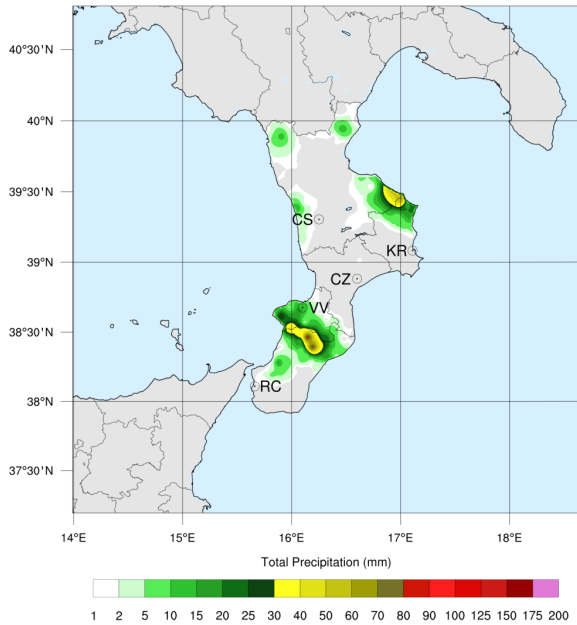


Figure 4. Cumulative precipitation for event 4: on the left, interpolated observation map; on the right, SST0 simulation.

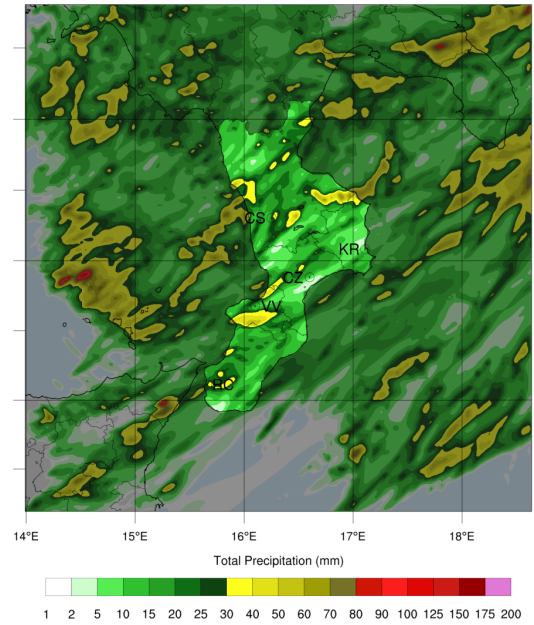
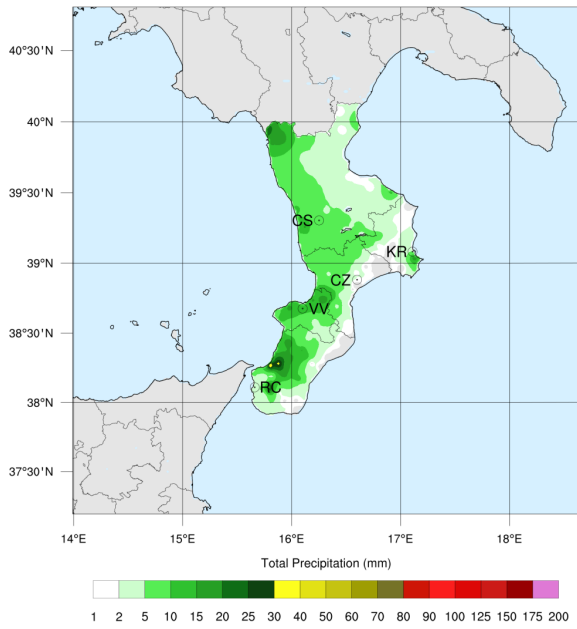


Figure 5. Cumulative precipitation for event 5: on the left, interpolated observation map; on the right, SST0 simulation.

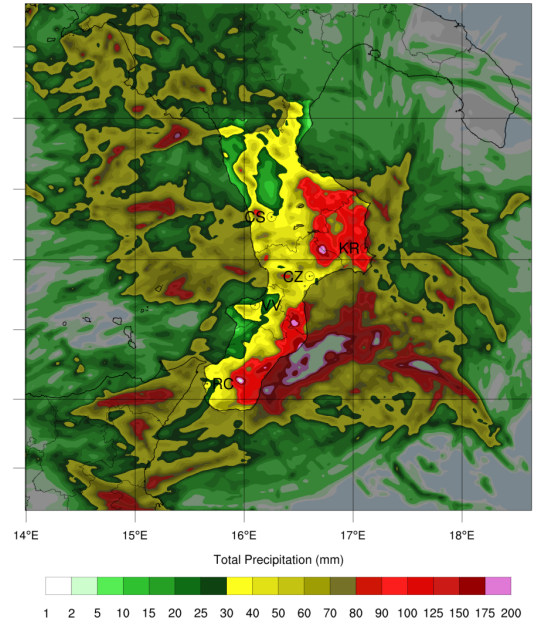
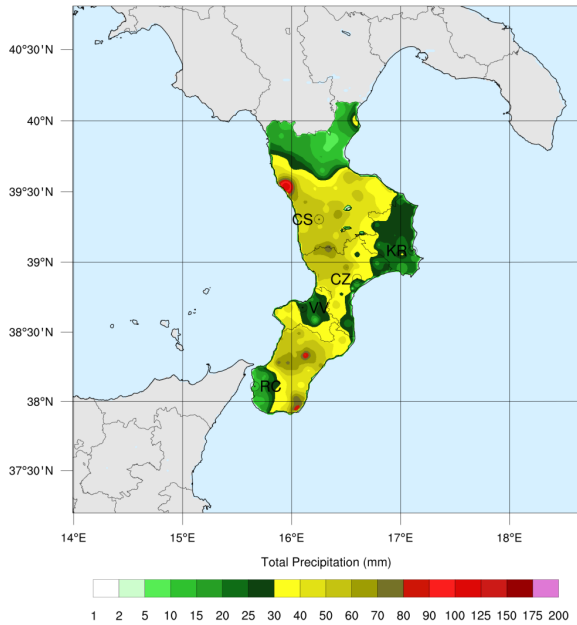


Figure 6. Cumulative precipitation for event 6: on the left, interpolated observation map; on the right, SST0 simulation.

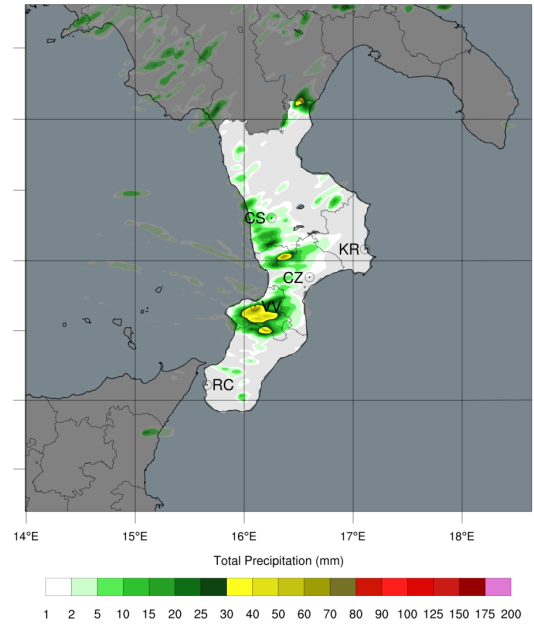
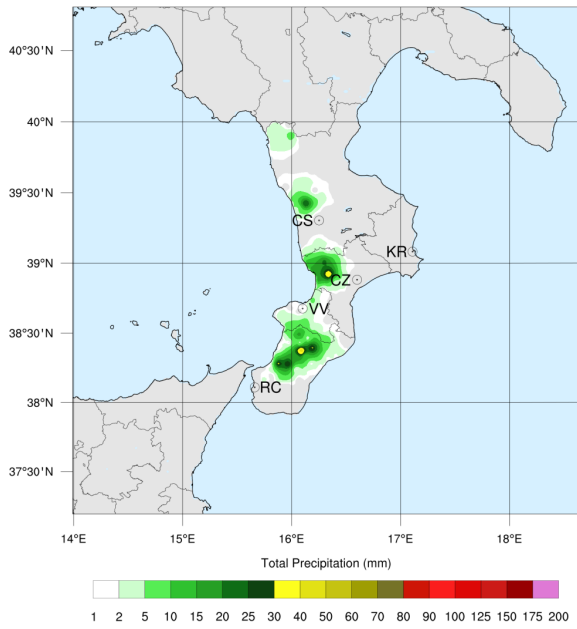


Figure 7. Cumulative precipitation for event 7: on the left, interpolated observation map; on the right, SST0 simulation.

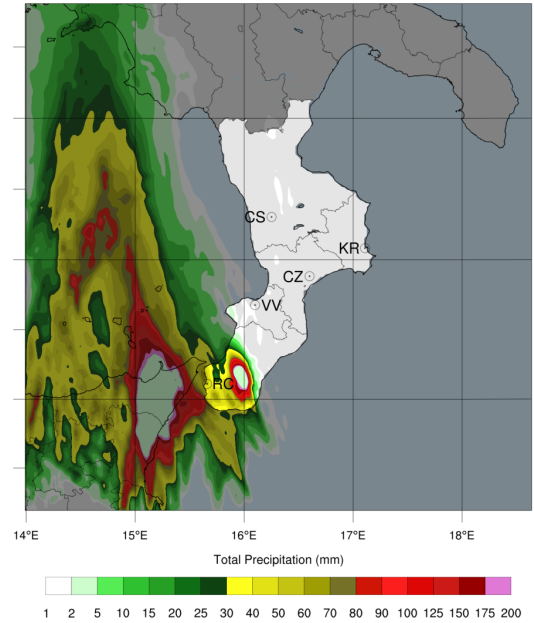
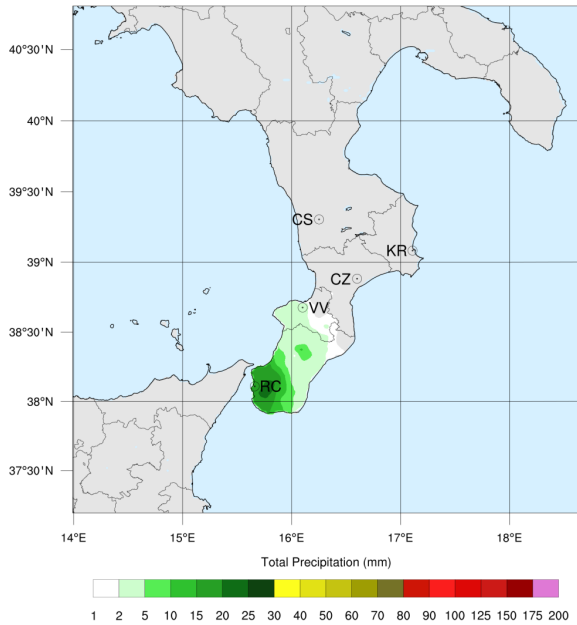


Figure 8. Cumulative precipitation for event 8: on the left, interpolated observation map; on the right, SST0 simulation.

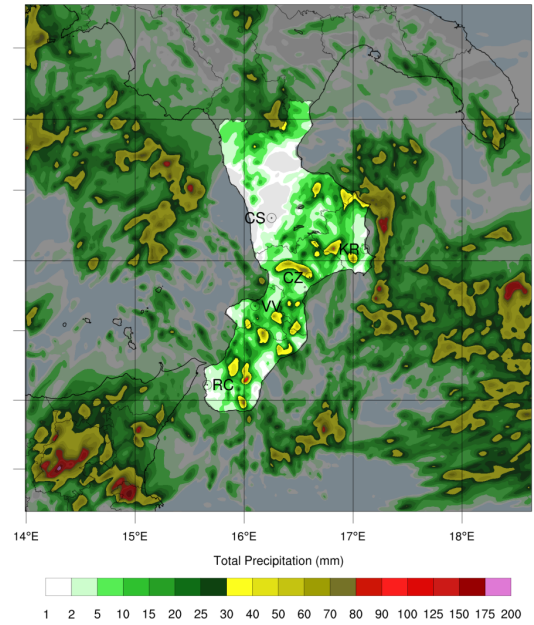
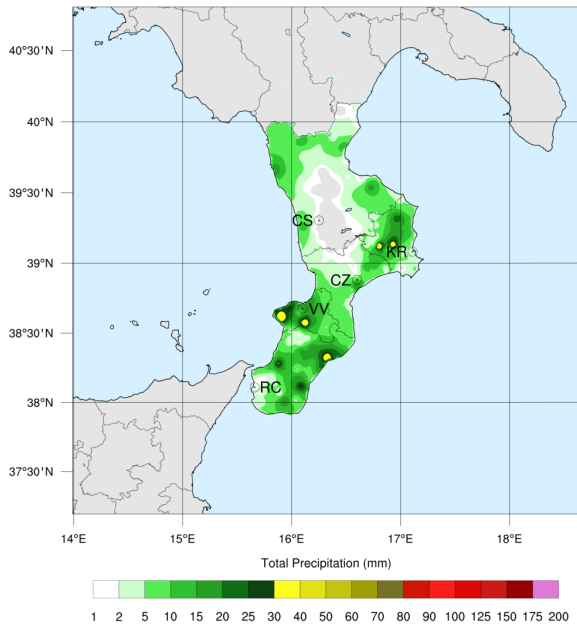


Figure 9. Cumulative precipitation for event 9: on the left, interpolated observation map; on the right, SST0 simulation.

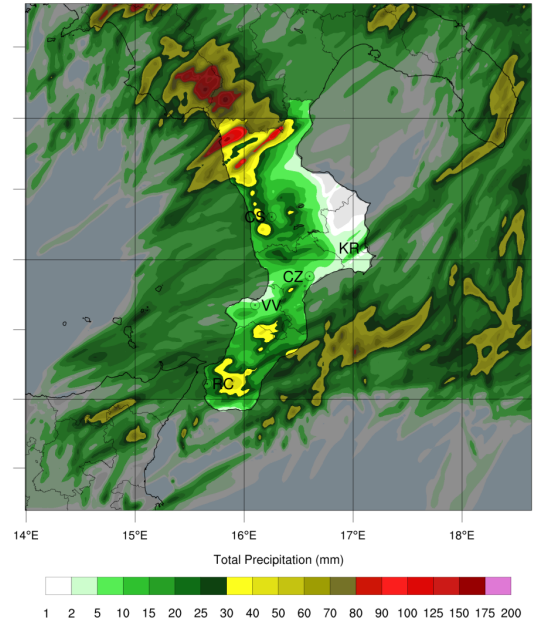
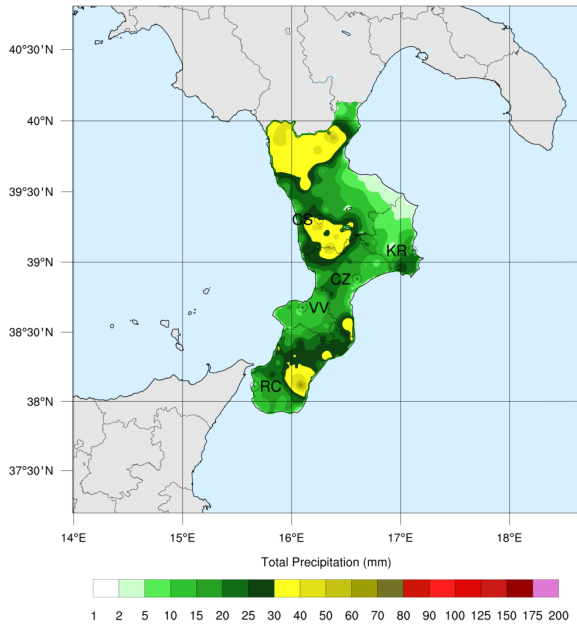


Figure 10. Cumulative precipitation for event 10: on the left, interpolated observation map; on the right, SST0 simulation.

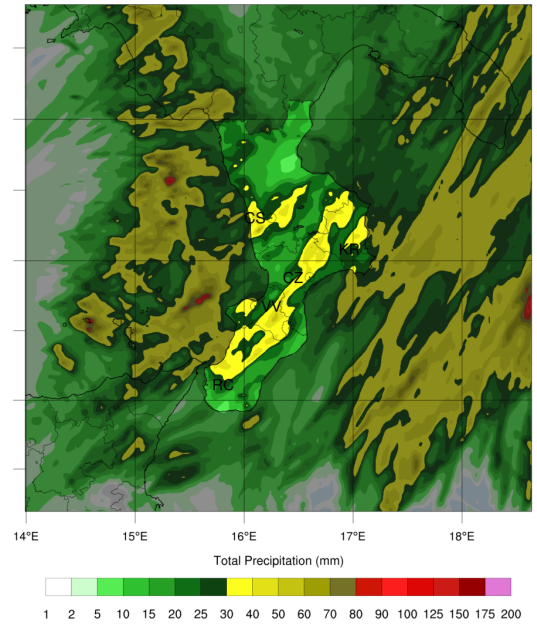
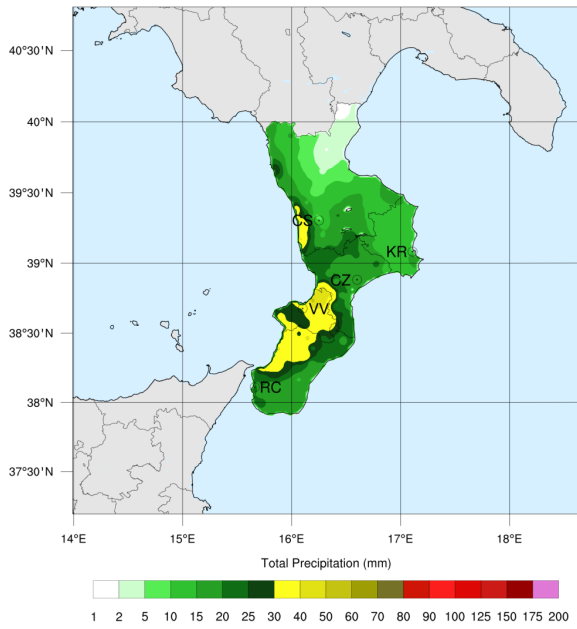


Figure 11. Cumulative precipitation for event 11: on the left, interpolated observation map; on the right, SST0 simulation.

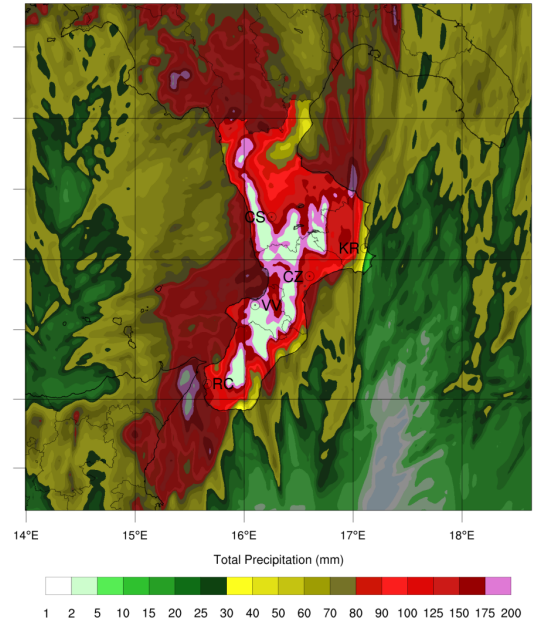
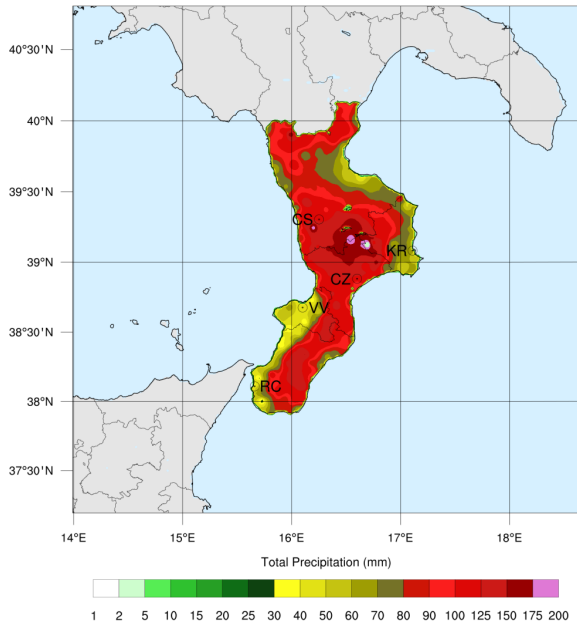


Figure 12. Cumulative precipitation for event 12: on the left, interpolated observation map; on the right, SST0 simulation.

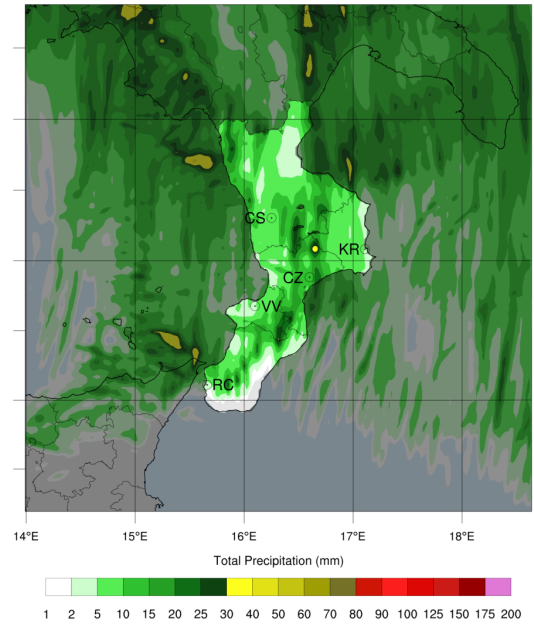
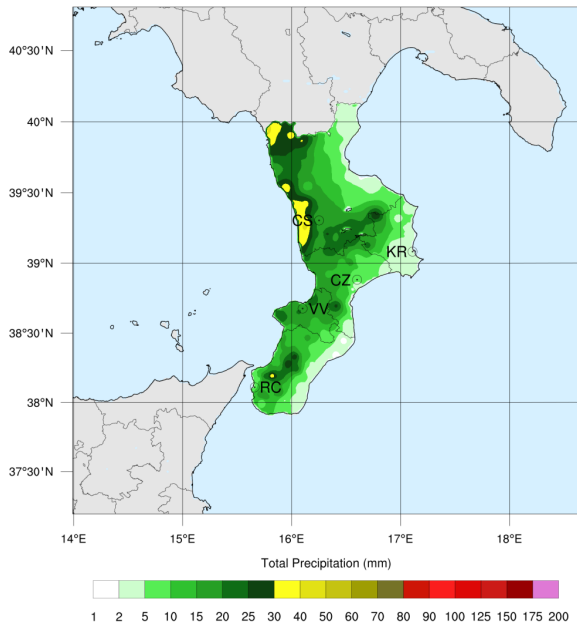


Figure 13. Cumulative precipitation for event 13: on the left, interpolated observation map; on the right, SST0 simulation.

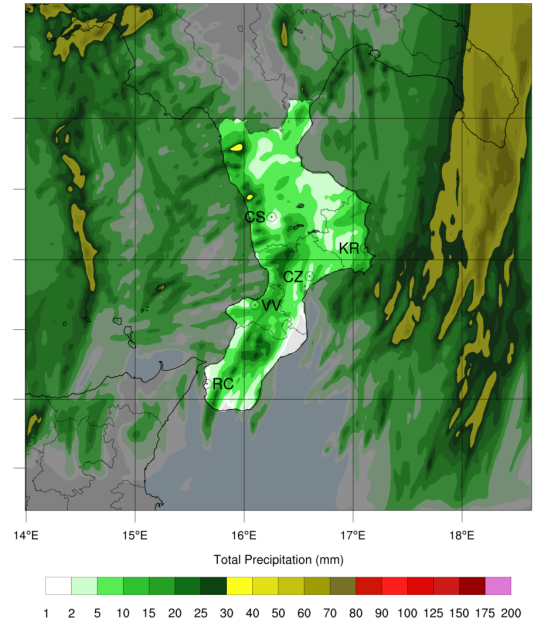
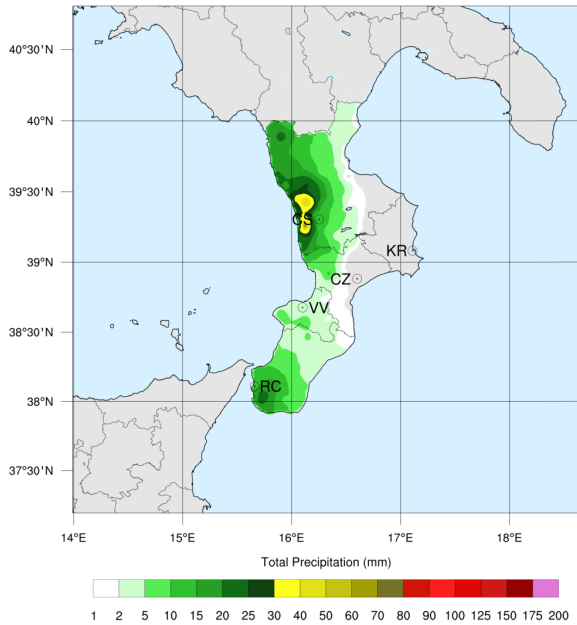


Figure 14. Cumulative precipitation for event 14: on the left, interpolated observation map; on the right, SST0 simulation.

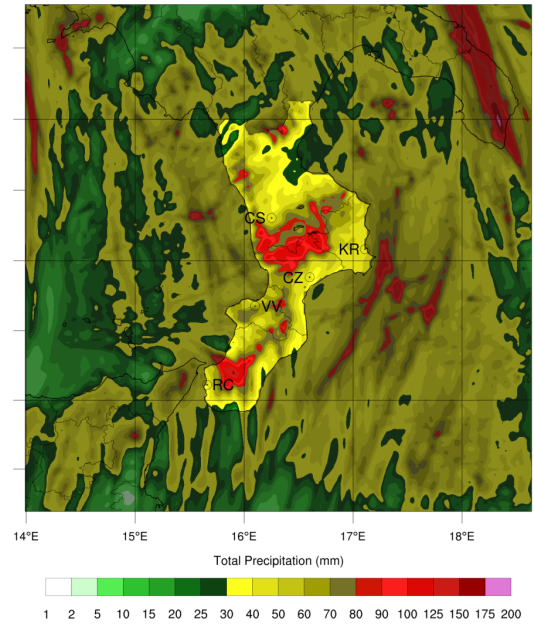
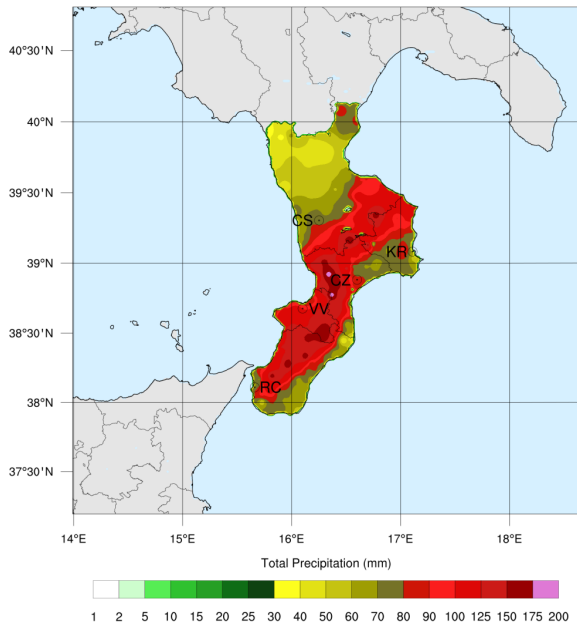


Figure 15. Cumulative precipitation for event 15: on the left, interpolated observation map; on the right, SST0 simulation.

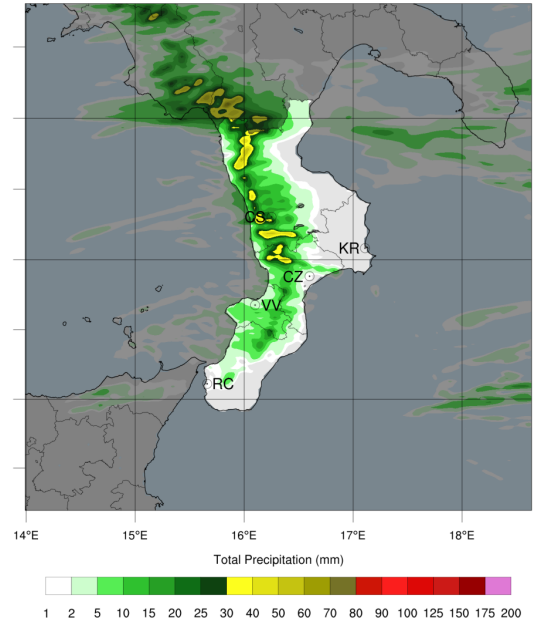
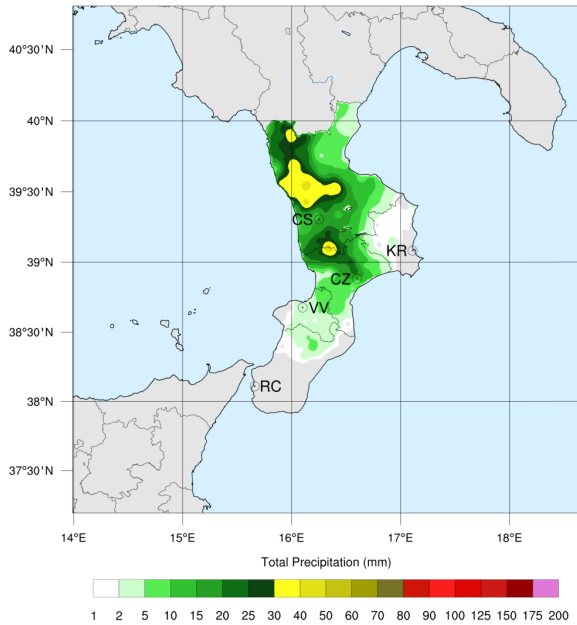


Figure 16. Cumulative precipitation for event 16: on the left, interpolated observation map; on the right, SST0 simulation.

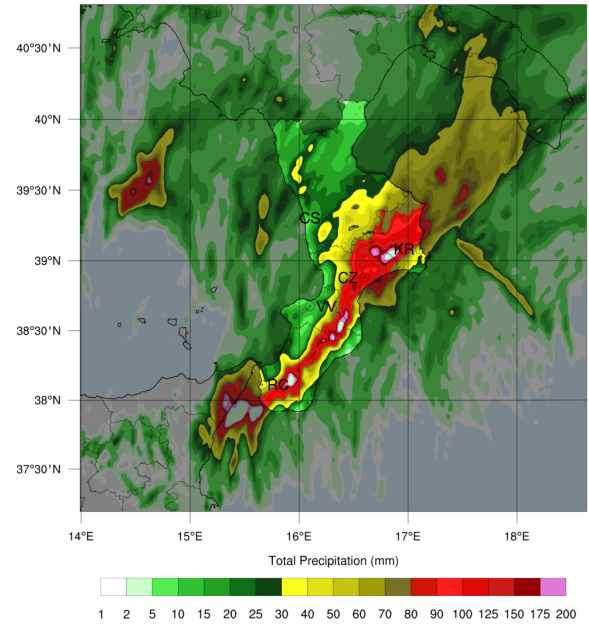
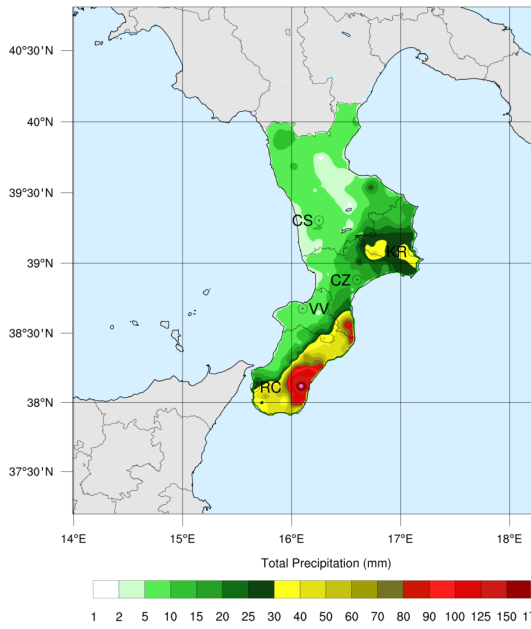


Figure 17. Cumulative precipitation for event 17: on the left, interpolated observation map; on the right, SST0 simulation.

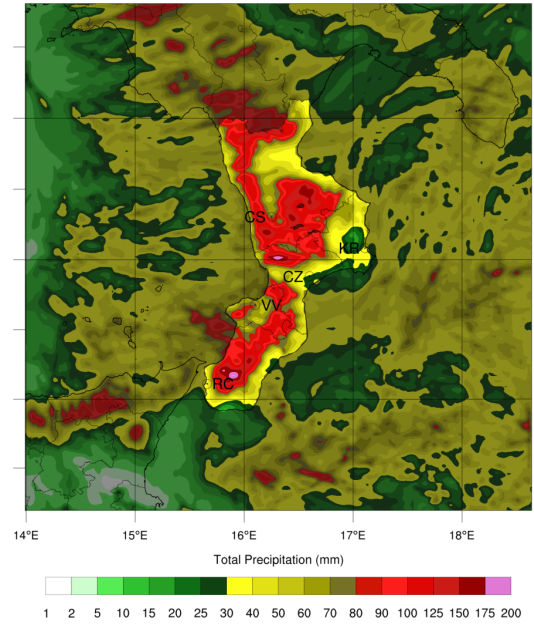
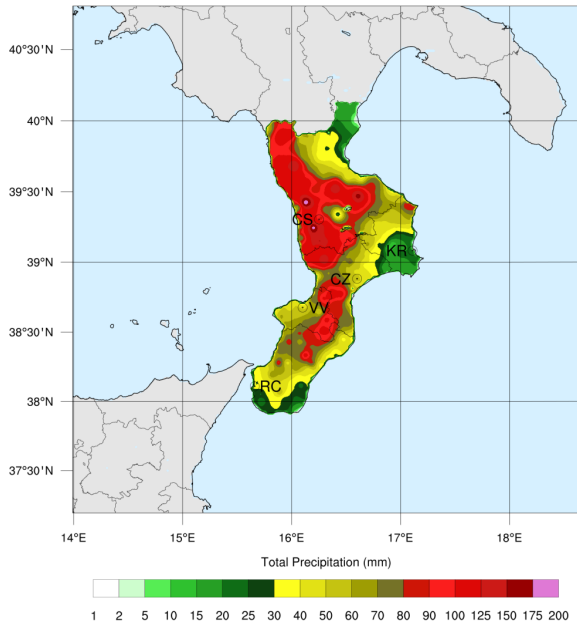


Figure 18. Cumulative precipitation for event 18: on the left, interpolated observation map; on the right, SST0 simulation.

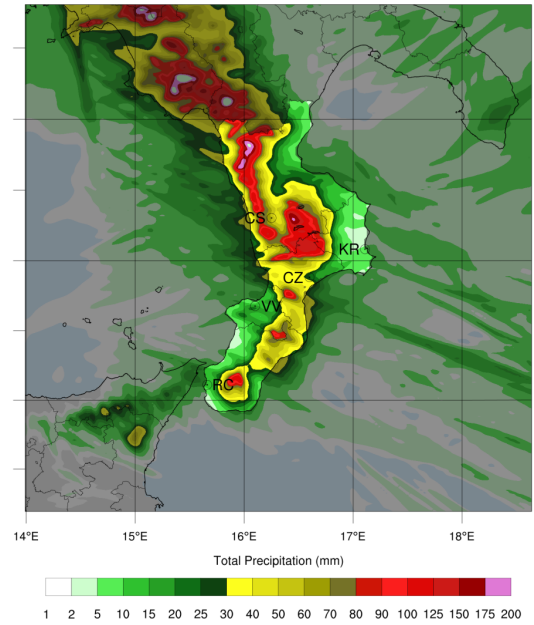
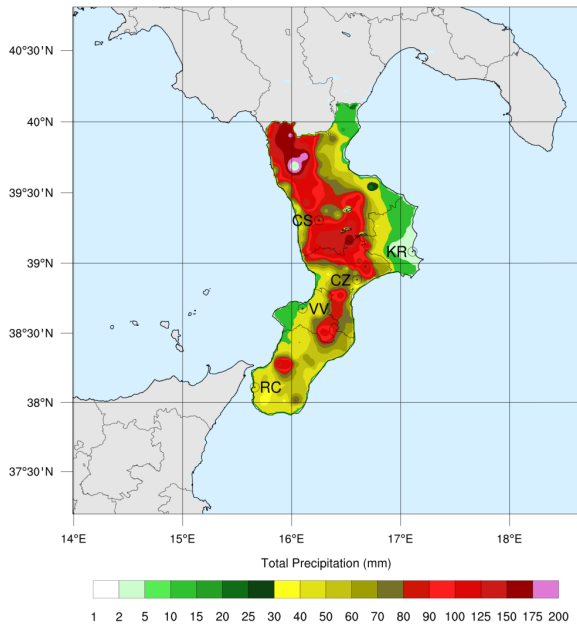


Figure 19. Cumulative precipitation for event 19: on the left, interpolated observation map; on the right, SST0 simulation.

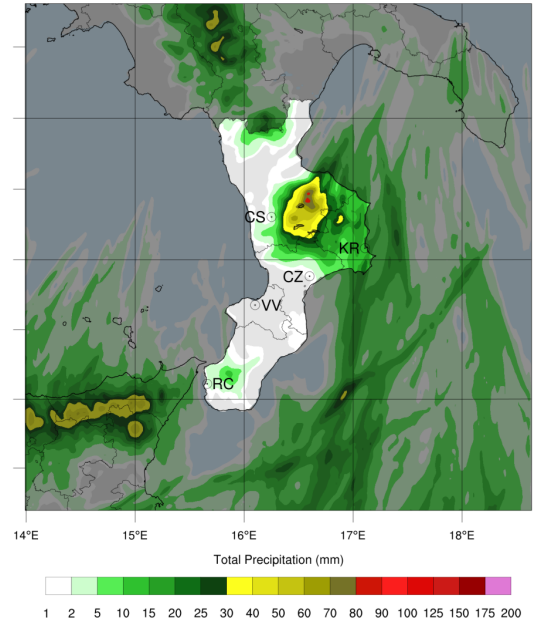
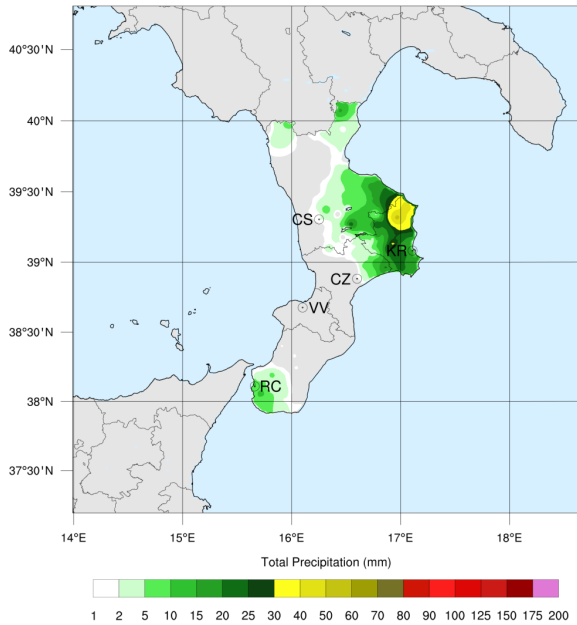


Figure 20. Cumulative precipitation for event 20: on the left, interpolated observation map; on the right, SST0 simulation.