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## Tropical Cyclone-related Extreme Rainfall and Its Impact under Solar Radiation Management (SRM) in Eastern Indonesia Region

**Sorja Koesuma**<sup>1</sup>, Akhmad Faqih<sup>2</sup>, Hendri Hendri<sup>3</sup>, Jassica Listyarini<sup>2</sup>, Adinda Madi Astiani<sup>2</sup>, Delfina Azzahra Kusuma<sup>4</sup>, and Rahmat Gernowo<sup>5</sup>

<sup>1</sup>Department of Physics, Sebelas Maret University, Indonesia

<sup>2</sup>Department of Geophysics and Meteorology, IPB University, Indonesia

<sup>3</sup>Faculty of Forestry and Post Graduate, University of Papua, Indonesia

<sup>4</sup>Department of Oceanography, Diponegoro University, Indonesia

<sup>5</sup>Department of Physics, Diponegoro University, Indonesia

The provinces of East Nusa Tenggara (NTT) and Papua are located in the eastern part of Indonesia. The occurrence of tropical cyclones and extreme weather events has recently increased in both regions. It is necessary to be aware of the impact, both direct and indirect, of tropical cyclones, which affect the weather, especially extreme rainfall. The study aims to investigate the impact of extreme rainfall and find potential solutions.

We use some of the following tropical cyclone data that happened in Indonesia. The tropical cyclone of Seroja on April 4, 2021, reached mainland NTT and had a significant impact, especially on Timor Island and Sumba Island. The tropical cyclone of Surigae was formed in the northern region of Papua on April 12-19, 2021. The peak of this cyclone was on 16 April 2021. The tropical cyclone of Ray formed around the Northwest/Western Pacific Ocean on December 13-20, 2021.

We analysed the atmospheric dynamics (rainfall) of the tropical cyclone events using the ERA5 model. We also use Bias correction from GeoMIP to analyse the rainfall and compare both results. The result shows that both data are well correlated and tend to decrease.