On July 23 2012 a large CME was emited by the Sun and observed by STEREO. This has been compared to the Carrington Event as a driver and has actual observations.

Chigo Ngwira reconstructed STEREO observations of this event. The data file used for the simulation in [Ngwira et al., [2013]](https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2013SW000990).