

## 1.1.4.1.8 Formation of flux ropes/CMEs via magnetic reconnection in the corona

The detailed properties and configuration of the magnetic field in CME source regions are required for an understanding of the physical processes responsible for these large scale eruptions. Recent work has supported the role of magnetic reconnection at coronal altitudes, driven by strong photosphere flows, as being able to form flux ropes (James et al., 2017). The formation and evolution of coronal flux ropes is investigated here through observations and NLFFF modelling.

Required observations:

- EUI high resolution images of an emerging and rapidly evolving active region with a cadence of 10 minutes for context
- EUI high resolution images of an emerging and rapidly evolving active region with a cadence of 20 seconds triggered by a solar flare
- PHI high resolution images of the emerging active region