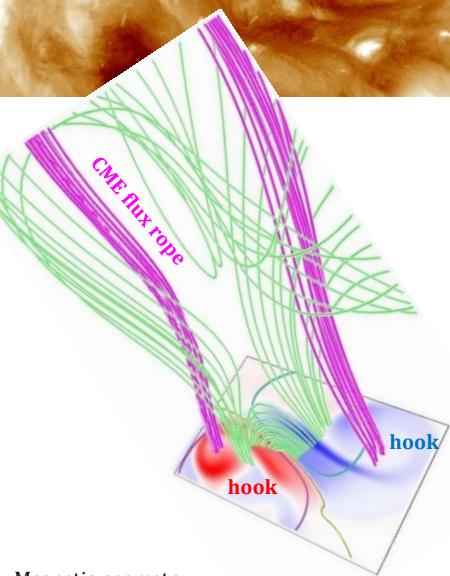
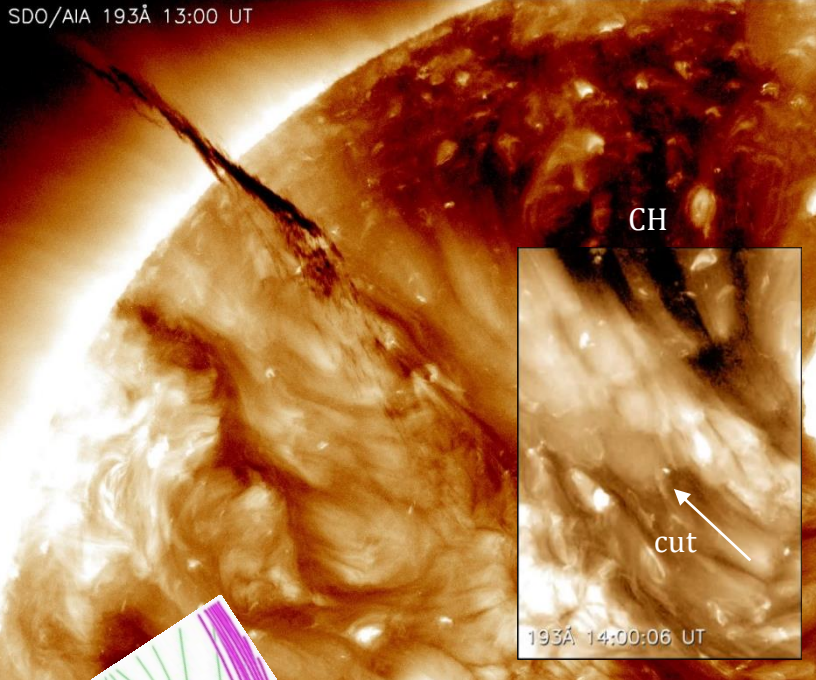


# Imaging of solar wind outflows from a CME footprint

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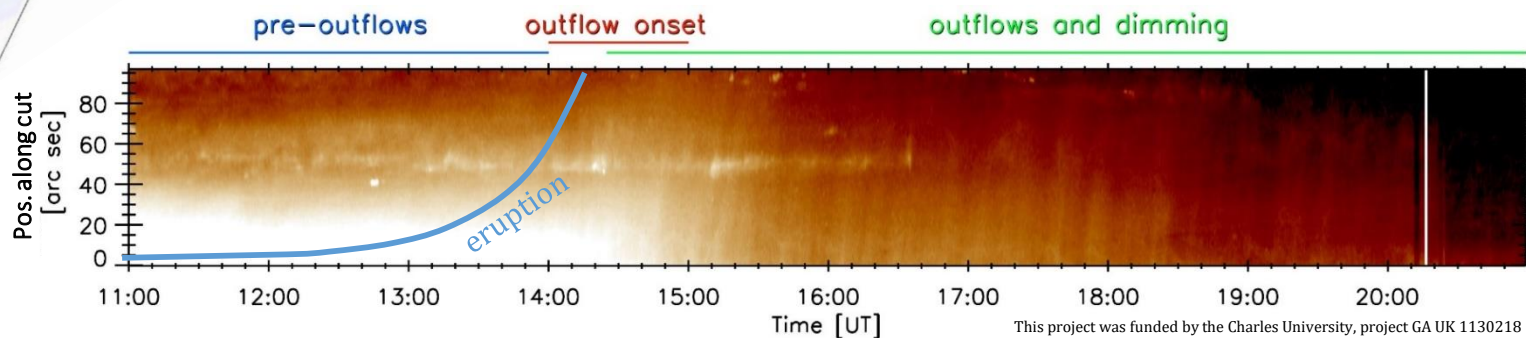


- 2015/04/28 eruption of a quiescent filament
- J-shaped (hooked) ribbon with a core dimming
- Funnel-like QS loops within the dimming region
- Upward propagations visible in *SDO/AIA* 171 and 193
- Characteristics of the motion based on time-distance diagrams:
  - onset co-temporal with the fast-rise phase of the eruption
  - velocity: 70 – 140 km s<sup>-1</sup>
  - properties of motions **constant for > 5 hours & along funnels**
- Possibly outflows?
  - link with blue-shifts observed in core dimmings e.g., Harra & Sterling 2001, Veronig et al. 2019
  - wave propagation would imply speed variations along funnels
  - motions with same characteristics found in the coronal hole CH

- Outflows similar to those along true funnels →

solar wind from CME footpoints

- Details in [Lörinčík et al., 2021 \(ApJ, 906, 62\)](#)



Magnetic geometry:  
 Footpoints of opening CME field lines surrounded by hooked ribbons.

3D MHD simulation of an erupting flux rope performed using the OHM code (Aulanier et al., 2010).

Adapted from Barczynski et al., 2019