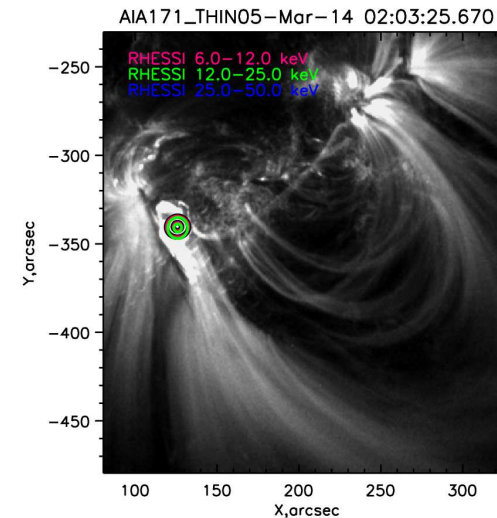
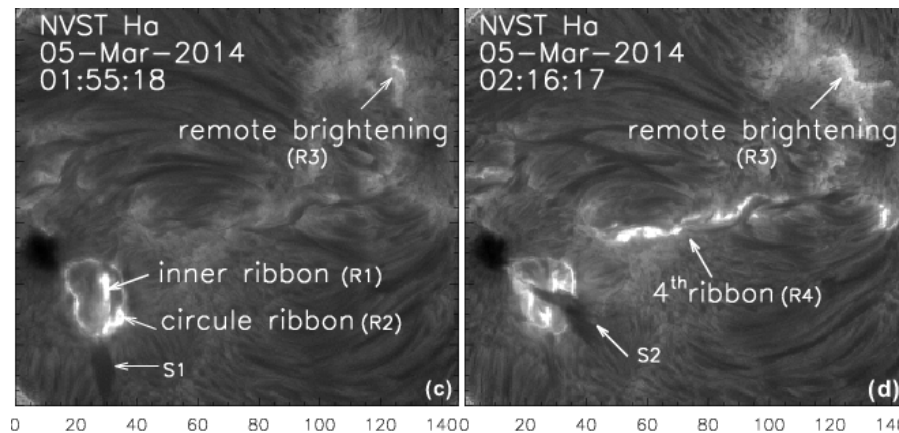


# About origin of quasi-periodicities during the circular ribbon flare

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1. We consider the flare occurred on Mar 5, 2014 in a fan magnetic structure.
2. The position of the flare allows us to distinguish between the processes of acceleration of electrons and thermodynamic processes.
3. The periodicity with characteristic time scales  $P \approx 2.5$  min is found at H-alpha, HXR, and microwave emission.
4. Quasi-periodicity are found at sites related to a process of energy release (fan).
5. A shear motion of the circular ribbon in H-alpha emission was found by Xu et al. (2016). We estimate the correspondent speed  $v \approx 46$  km/s.
6. The remote source does not associated with accelerated electrons. A thermodynamic process is more probable reason for the emission.