

Search or Article-id (Help | Advanced search) arXiv.org > astro-ph > arXiv:1107.4480 All papers Go! Ŧ Astrophysics > Solar and Stellar Astrophysics Download: PDF PostScript Other formats Current browse context: astro-ph.SR < prev | next > new | recent | 1107 Change to browse by: astro-ph References & Citations **INSPIRE HEP** 

(refers to | cited by) NASA ADS



## **Emission Measure Distribution** and Heating of Two Active Region Cores

Durgesh Tripathi, James A. Klimchuk, Helen E. Mason

(Submitted on 22 Jul 2011)

Using data from the Extreme-ultraviolet Imaging Spectrometer aboard Hinode, we have studied the coronal plasma in the core of two active regions. Concentrating on the area between opposite polarity moss, we found emission measure distributions having an approximate power-law form EM\$\propto T^  $\{2.4\}$  from  $\log_T = 5.5$  up to a peak at  $\log_T = 6.55$ . We show that the observations compare very favorably with a simple model of nanoflare-heated loop strands. They also appear to be consistent with more sophisticated nanoflare models. However, in the absence of additional constraints, steady heating is also a viable explanation.

Comments: 24 pages, 9 Figures, Accepted for Publication in The Astrophysical Journal Subjects: Solar and Stellar Astrophysics (astro-ph.SR) arXiv:1107.4480 [astro-ph.SR] Cite as: (or arXiv:1107.4480v1 [astro-ph.SR] for this version)

## Submission history

From: Durgesh Tripathi Dr [view email] [v1] Fri, 22 Jul 2011 11:01:04 GMT (839kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.