

Abstract Submitted
for the DPP12 Meeting of
The American Physical Society

Magnetic Topology of Pseudo-Streamers in the 2010 August 1-2 Eruption Events¹ VIACHESLAV TITOV, ZORAN MIKIC, TIBOR TOROK, JON LINKER, Predictive Science, Inc., OLGA PANASENCO, Helio Research — A sequence of apparently coupled eruptions was observed on 2010 August 1-2 by SDO and STEREO. The eruptions were closely synchronized, even though some of them occurred very far from each other. Trying to identify a plausible reason for such synchronization, we study the large-scale structure of the background magnetic field. The latter was computed from the photospheric magnetic field observed at the appropriate time period by using the potential field source-surface model. For the resulting configuration, we determine its structural skeleton, which includes all separatrix and quasi-separatrix surfaces. Analyzing them, we reveal three pseudo-streamers in the regions where the eruptions occurred. Of special interest to us are the magnetic null points and separator field lines associated with these pseudo-streamers. We propose that magnetic reconnection at such nulls and separators played likely a key role in establishing the physical link between the successive eruptions.

¹Research supported by NASA and NSF.

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Date submitted: 23 Jul 2012

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