Geophysical Research Abstracts, Vol. 7, 07887, 2005
SRef-ID: 1607-7962/gra/EGU05-A-07887

Evolution of reconnection along an arcade of loops

P. Grigis (1), A. Benz (1)
(1) Institute of Astronomy, ETH Zurich

RHESSI observations of a solar flare showing continuous footpoint motions along an arcade of loops are presented. The temporal evolution shows many distinct emission peaks of duration of some tens of seconds ('elementary flare bursts'). Elementary flare bursts have been interpreted as instabilities or oscillations of the reconnection process leading to an unsteady release of magnetic energy. These intepretations based on two-dimensional concepts cannot explain images made by the RHESSI satellite, showing that the flare elements are displaced in a third dimension along the arcade. Therefore, the observed flare elements are not a modulation of the reconnection process, but originate as this process progresses along an arcade of magnetic loops.