

WG 4 – Multi-wavelength correlative studies

WG4 Objectives:

- (i) Integrate RHESSI data into a multi-wavelength view of flares
- (ii) Use multi-wavelength data to help understand acceleration, heating, magnetic field changes

Topics for this meeting:

- Plasma properties (DEM of 'thermal' plasmas – especially coronal sources, RHESSI Fe/Ni line)
- Microflares
- Flare footpoints (energy deposition, clues to coronal magnetic structure)

Draft Programme – Locarno Meeting

Wednesday 8th

am: 'Thermal' plasmas, Fe/Ni line, microflares
pm: pre-flare, flare footpoints I


Thursday 9th

am: coronal sources (+WG3), Flare footpoints II
 optional - very high energy particles (+WG2/3)
pm: joint with WG5, and other splinter sessions

Friday 10th

am: joint session with WG2 on Oct 28 2003 annihilation line
pm: WG activities + round-up discussion

GOALS

- (1) For meeting with WG5: need 'observational features that must be explained by theories'
- (2) Overview of coronal sources  survey paper?
- (3) Footpoint motions overview? (eg Sakao '94)
- (4) Quiet sun science for RHESSI!
- (5) Flare total energy – for many flares.

Wednesday 8th June

10:45 - 11:00 Introduction + preliminaries

11:00 - 11:30 *Dennis* - Separation of Thermal and Nonthermal Emissions

11:30 - 12:00 *McTiernan* - Multi-Instrument Differential Emission Measure

Lunch

14:00 - 14:30 *Vaananen* – XSM: A stellar X-ray Spectroscope for the Sun

14:30 – 15:00 *Christe* - Microflare Statistics and Frequency Distribution

15:00 - 15:30 *Schmahl* - Hard & soft X-ray and EUV pre-flare phenomena

Coffee break

16:00 - 16:30 *Gallagher* - Chromospheric and Transition Region Response

16:30 – 17:00 *Temmer* - Hard X-ray emission & flare ribbon expansion

17:00 - 17:30 *Ji* - Converging motion of solar flare kernels

Thursday 9th June

Joint session with WG4 8.30 – 10.15

Preliminary comments:

Bone – multiwavelength observations of a partially occulted flare

Dauphin -

Krucker – Coronal HXR sources in partly occulted flares

Veronig – X-ray looptop altitude decrease in an X-class flare

Coffee

10:45 – 11:15 *Hudson* Implications of compact footpoints

11:15 – 11:45 *Henoux* Flare impact polarization observed with THEMIS

11:45 – 12:15 *Fletcher* UV ribbons and Hard X-ray footpoints