

Solar Plasma Spectroscopy: Achievements and Future Challenges

13-15 September 2010

Monday - 13th September - 2010

Conference Registration & Coffee **08:30 - 09:15**

Session A (Introduction and Historical Perspective) - 09:15 - 10:30

Chair - Giulio Del Zanna

Peter Haynes	Welcome	09:15 - 09:30
George Doschek	High Resolution X-ray and UV Solar Spectroscopy: Past Achievements and Future Directions	09:30 - 10:00
Peter Young	UV spectroscopy in the SOHO era	10:00 - 10:30
Coffee Break		10:30 - 11:00

Session B (UV and X-ray Observations) - 11:00 - 12:30

Chair - Robert Walsh

Len Culhane	The Role of XUV and Soft X-ray Observations in Understanding the Solar Corona	11:00 - 11:20
Leon Golub	Observing the EUV Sun: How Far Have We Come?	11:20 - 11:40
Enrico Landi	Plasma diagnostics of a CME associated current sheet	11:40 - 11:52
Fabio Reale	Coronal Fuzziness modeled with pulse-heated multi-stranded loop system	11:52 - 12:04
Laurent Dolla	On the nature of the spectral line broadening in solar coronal dimmings	12:04 - 12:16
Louise Harra	Using spectroscopy to understand the source of coronal mass ejections	12:16 - 12:28
Lunch Break		12:30 - 14:00

Session C (UV and X-ray Diagnostics) - 14:00 - 15:30

Chair - Carole Jordan

Alan Gabriel	Atomic Spectroscopy and the Solar Atmosphere; a fruitful partnership	14:00 - 14:20
Ken Phillips	Importance of iron in solar physics	14:20 - 14:40
Ken Dere	The CHIANTI atomic database	14:40 - 15:00
Elena Dzifcakova	Can kappa-distributions explain observed intensities of Si III lines in the transition region?	15:00 - 15:15
Jaroslav Dudik	The effect of non-thermal distributions on coronal radiative losses	15:15 - 15:30
Coffee Break		15:30 - 16:00

Session D (Atomic and Laboratory Physics) - 16:00 - 17:20

Chair - Ken Dere

Carole Jordan	New line identifications in solar and stellar spectra between 1300 and 1400 Å	16:00 - 16:20
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Nigel Badnell	Atomic Processes for Astrophysical Plasmas	16:20 - 16:40
Hugh Summers	Population structure of atoms and ions in plasmas	16:40 - 17:00
Tetsuya Watanabe	Iron Line Diagnostics of Non-Equilibrium Plasma in Solar and Laboratory Plasmas	17:00 - 17:20

Conference Reception **17:45 - 19:00**

Tuesday - 14th September - 2010

Session D (Atomic and Laboratory Physics) - 9:00 - 10:30

Chair - Ken Philips

Peter Storey	Excitation of the Fe XIV spectrum in the Sun, stars and Seyfert galaxies; reconciling theory, observations and experiment.	09:00 - 09:20
Jacques Dubau	Atomic data for non-thermal electron excitation of coronal ions	09:20 - 09:40
Brian Fawcett	Some foundations for classification of spectra of highly ionized atoms and their impact on collision physics.	09:40 - 10:00
Giulio Del Zanna	Benchmarking atomic data for astrophysical applications	10:00 - 10:15
Claudio Mendoza	VAMDC: atomic data production, curation, management and preservation in data-intensive e-science	10:15 - 10:30
Coffee Break		10:30 - 11:00

Session E (Solar Atmosphere: From the Photosphere to the Corona) - 11:00 - 12:30

Chair - Eric Priest

Alan Hood	Flux Emergence	11:00 - 11:20
Hiroaki Isobe	Solar atmosphere as a laboratory for magnetic reconnection	11:20 - 11:40
Amy Winebarger	Steady Heating Model of an Active Region Core	11:40 - 11:52
Petr Heinzel	Non-thermal Collisional Processes in Solar Flares	11:52 - 12:04
Celine Boutry	Magnetic topology around a downflow towards AR10943: a large-scale flow from AR10942?	12:04 - 12:16
Valentina Zharkova	Non-thermal effects in H-alpha emission observed in flare 25 July 2004	12:16 - 12:28
Lunch Break		12:30 - 14:00

Session F (Flares and Coronal Heating) - 14:00 - 15:30

Chair - Jean-Claude Vial

James Klimchuk	Why We Need Spectroscopy to Solve the Coronal Heating Problem?	14:00 - 14:20
Lyndsay Fletcher	Solar flare particle acceleration - a spectroscopic viewpoint	14:20 - 14:40
Hugh Hudson	The optical and UV continuum in the impulsive phase	14:40 - 14:52
Costis Gontikakis	Study of a microflare observed with SUMER presenting resonant scattering in the C IV 1548, 1550 lines.	14:52 - 15:04
Giota Petkaki	Anomalous resistivity in solar and space plasmas	15:04 - 15:16
Urmila Mitra Kraev	Solar flare observations	15:16 - 15:28
Coffee Break		15:30 - 16:00

Session G (Coronal loops) - 16:00 - 17:30***Chair - Lyndsay Fletcher***

Susanna Parenti	Coronal Loops Observations	16:00 - 16:20
Stephen Bradshaw	Non-equilibrium process in the Solar Corona	16:20 - 16:40
Robert Walsh	Multi-thread loop modelling and observed red-shift downflows	16:40 - 16:52
Dipankar Banerjee	Propagating waves within coronal loops	16:52 - 17:04
Vincenzo Andretta	Physical structure of solar cool loops	17:04 - 17:16
Durgesh Tripathi	Using Active Region Moss to Examine Heating in Hot Core Loops	17:16 - 17:28

Conference Banquet**19:00****Wednesday - 15th September - 2010****Session G (Coronal Loops) - 09:00 - 10:30*****Chair - James Klimchuk***

Brendan O'Dwyer	SDO/AIA response to coronal hole, quiet Sun, active region and flare plasma	09:00 - 09:12
Caroline Alexander	Coronal loop analysis with combined Hinode and SDO observations	09:12 - 09:24
Nicholeen Viall	Heating of Coronal Loops: Comparing SDO light curves with nanoflare heating models	09:24 - 09:36
Sergio Terzo	Single-filter temperature diagnostics of an active region observed with Hinode/XRT	09:36 - 09:48
Roberto Susino	EUV spectral lines properties in impulsively heated multi-stranded coronal loops	09:48 - 10:00
Moisey Livshits	Multi-temperature model for post-eruptive coronal loops observed at the EUV-range and microwaves	10:00 - 10:12
Rajmal Jain	X-ray Diagnostics of Fe and Fe/Ni line Features seen during Solar Flares	10:12 - 10:24
Coffee Break		10:30 - 11:00

Session H (Future Challenges) - 11:00 - 12:15***Chair - Durgesh Tripathi***

Leon Golub	SDO	11:00 - 11:15
Richard Harrison	Solar Orbiter	11:15 - 11:30
Simon Bandler	High Spectral Resolution, High Cadence, Imaging X-ray Microcalorimeters for Solar Physics	11:30 - 11:45
Peter Young	Conference summary and discussion	11:45 - 12:15
Lunch Break		12:30 - 14:00

Posters:

Name: Daniel Wolf Savin

Title: Ionization and Recombination Measurements at the Heidelberg Heavy Ion Storage Ring TSR

Name: Randall Smith

Title: X-ray Diagnostics of Solar Plasmas from a Broadband Imaging High-Resolution Spectrometer

Name: Nicolas Labrosse

Title: EUV lines observed by EIS/Hinode in a solar prominence

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Title: Prominence plasma diagnostic with EIS/Hinode

Name: Alena Kulinova

Title: Diagnostics of non-thermal electron distributions in solar flares from RESIK and RHESSI spectra

Name: Guiyun Liang

Title: Calculation and application of R-matrix electron-impact excitation data newline

Name: Jean-Claude Vial

Title: Is there something wrong with the conventional Transition Region ?

Name: Michael Hahn

Title: Properties of the Solar Corona above a Polar Coronal Hole during the Solar Minimum in 2007

Name: Stanislav Gunar

Title: Prominence fine structures and corresponding differential emission

Name: Kyoung-Sun Lee

Title: Two Distinct Types of EUV Brightenings in the AR 10926 by Hinode/EIS

Name: Jaroslav Dudik

Title: On the modelling of the active region EUV and X-Ray emission

Name: Valentina Zharkova

Title: On diagnostics of electron beams from HXR and polarisation emission from precipitation models with electric field

Name: Petr Heinzel

Title: EUV and X-ray Diagnostics of Prominences and Their Cavities