

THEO MURPHY MEETING

New approaches in coronal heating

Tuesday 26 – Wednesday 27 August 2014

Organised by Dr Ineke De Moortel and Professor Philippa Browning

DAY 1				DAY 2			
Morning session		Afternoon session		Morning session		Afternoon session	
09.00	Welcome						
09.05	Jim Klimchuk The coronal heating problem: current understanding and future directions	14.00	Inigo Arregui Magnetohydrodynamic wave heating of the solar atmosphere	08.30	Dana Longcope The role of reconnection in coronal heating	13.30	Bart De Pontieu IRIS observations of the chromosphere and transition region and their connection to the corona
09.30	Joan Schmelz What can observations tell us about coronal heating?	14.30	Marco Velli The role of turbulence in coronal heating	09.00	Clare Parnell The importance of magnetic topology for coronal heating	14.00	Juan Martinez-Sykora The role of partial ionization and heating in the chromosphere
10.00	Paola Testa What can we learn about coronal heating from other stars?	15.00	Discussion and spotlight presentations 7, 8 and 9	09.30	Discussion and spotlight presentations 15, 16 and 17	14.30	Discussion and spotlight presentations 24 and 25
10.30	Discussion and spotlight presentations 1 and 2	16.00	Tea and poster viewing	10.00	Coffee and poster viewing	15.30	Tea and poster viewing
11.00	Coffee and poster viewings	16.30	Peter Cargill Models of nanoflares: MHD and plasma response	10.30	Antonia Wilmot-Smith An overview of flux braiding experiments	16.00	Eric Priest Summary of discussions and closing remarks
11.30	Hardi Peter What can large scale MHD experiments tell us about coronal heating?	17.00	Discussion and spotlight presentations 10, 11, 12, 13 and 14	11.00	Michael Bareford The significance of kink instabilities in coronal heating	17.00	CLOSE
12.00	Discussion and spotlight presentations 3, 4, 5 and 6	18.00	CLOSE	11.30	Discussion and spotlight presentations 18, 19, 20, 21, 22 and 23		
1.00	LUNCH			12.30	LUNCH		

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SPOTLIGHT PRESENTATIONS.

Three minutes each

- 1) **Helen Mason** - Observational constraints on AR heating
- 2) **Iain Hannah** - NuSTAR's solar observing campaign: Towards detecting the faintest HXR emission from flare accelerated electrons
- 3) **Matts Carlsson** - Realistic MHD modelling from the convection zone to the corona
- 4) **Viggo Hansteen** - Realistic 3D simulations of a small flare resulting from flux emergence
- 5) **Pia Zacharias** - Tracing flows in the solar atmosphere using the Bifrost stellar atmosphere code
- 6) **Steve Bradshaw** - Large scale models of solar active regions
- 7) **Enrico Landi** - Alfvénic coronal heating and wind acceleration with AWSoM (Alfvén Wave Solar Model)
- 8) **Stefaan Poedts** - Multi-fluid modeling of coronal heating: the potential of micro-instabilities and drift waves
- 9) **Ineke De Moortel** - Self-Consistent Alfvén Wave Phase Mixing
- 10) **Fabio Reale** - What can MHD loop modelling tell us about coronal heating?
- 11) **Nicki Viall** - A survey nanoflare properties in active regions
- 12) **Amy Winebarger** - All evidence points down: Why the data suggests the corona is heated from the bottom up
- 13) **Scott McIntosh** - Clutching at straws: more than nanoflares
- 14) **Grisha Vekstein** - What coronal emission variability can tell us about nanoflares
- 15) **Klaus Galsgaard** - Energy release from small scale eruptions caused by magnetic flux emergence
- 16) **M. Asgari-Targhi** - Does the corona respond quasi-statically to footpoint motions?
- 17) **James Drake** - The onset of strong perpendicular ion heating during coronal reconnection
- 18) **Leon Golub** - Hi-C
- 19) **Mitch Berger** - Coronal heating from magnetic braiding
- 20) **Alan Hood** - An MHD avalanche model for coronal heating
- 21) **Jonathan Cirtain** - Coronal energy storage and release through magnetic braiding
- 22) **Alexander Russell** - Coronal heating by magnetic relaxation: the role and mechanics of magnetic helicity redistribution
- 23) **Philippa Browning** - Relaxation models of coronal heating in single and multiple twisted flux ropes
- 24) **Olga Panasenco** - Origins of hot and cold plasma in solar filaments and their photospheric, chromospheric and coronal environment
- 25) **Caroline Alexander** - What Hi-C moss observations can tell us about coronal heating