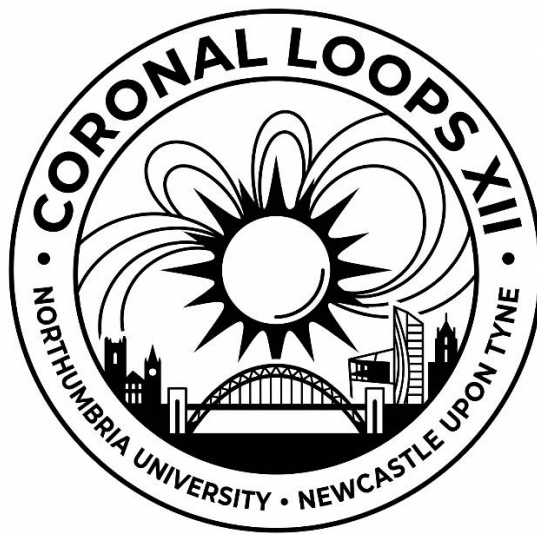


Coronal Loop Workshop XII (8-11 June 2026)

Northumbria University



Sessions

	Impulsive heating
	Science with solar observatories
	Magnetic and plasma processes in the corona
	Waves in magnetic structures
	Cool and hot plasmas

	Monday 8 th June	
	Chair: Richard Morton	
9:00-9:30	Welcome/Opening	
	Eamon Scullion "NESST: the North-East Space Skills and Technology"	15 min
9:30-10:00	Craig Johnston (invited contribution) <i>"Self-Consistent Heating of the Magnetically Closed Solar Corona: Generation of Nanoflares, Thermodynamic Response of the Plasma and Observational Signatures"</i>	30 min
10:00-10:20	Will Barnes <i>"Evolution of Impulsive Heating in Active Region NOAA 12712"</i>	20 min
10:20-11:30	Coffee Break	
11:30-11:50	Joseph Plowman <i>"The Impulsive Coronal Heating Event Distribution of an Active Region From 3D Simulation of its Emission"</i>	20 min
11:50-12:10	Stephen Bradshaw <i>"Application of a multi-species NLTE modeling framework to impulsive coronal heating and the partition of energy among particle species"</i>	20 min
12:10-12:30	Alexander Russell <i>"Ion Temperatures in Solar Flares and Reconnection Heated Coronal Loops"</i>	20 min
12:30-14:00	Lunch	
	Chair: Paola Testa	
14:00-14:20	Qihui Ming <i>"Distinct Regimes of Turbulent Reconnection: A New Trigger for Fast Coronal Energy Release?"</i>	20 min
14:20-14:40	Yajie Chen <i>"Heating and heat conduction in the transition region of coronal loops"</i>	20 min
14:40-15:00	Anna Rankin <i>"Exploring small-scale coronal loop structures using ultra high-resolution observations from Hi-C Flare"</i>	20 min
15:00-15:50	Poster Session, Coffee Break	
15:50-16:20	Sarah Matthews (invited contribution) <i>"Solar-C science objectives"</i>	30 min
16:20-16:40	Ritesh Patel <i>"Solar Orbiter High Resolution Imager Reveals Unprecedented Fine-scale Structures in Solar Flare Ribbons in the Corona"</i>	20 min
16:40-17:00	Open Discussion	
17:00-19:00	Welcome Drink	

	Tuesday 9 th June	
	Chair: Nicolas Poirier	
9:00-9:30	Teodora Mihailescu (invited contribution) <i>"Hinode EIS Observations of Plasma Composition Evolution and Radiative Cooling of Solar Flare Loops"</i>	30 min
9:30-9:50	Paola Testa <i>"Non-Gaussian line profiles in IRIS full-disk Si IV observations, and where to find them"</i>	20 min
9:50-10:10	David Pontin <i>"Distribution of energy release events due to magnetic braiding in coronal loops"</i>	20 min
10:10-10:30	Ruhann Steyn <i>"Multi-wavelength response of the photosphere, chromosphere and corona to a C-class flare on 1 July 2012"</i>	20 min
10:30-11:30	Coffee Break	
11:30-11:50	Erin Goldstraw <i>"Tearing instability evolution"</i>	20 min
11:50-12:10	Vadim Uritsky <i>"Coronal Loops are not Projected Veils"</i>	20 min
12:10-12:30	Stephane Regnier <i>"Revisiting the observed constant width of coronal loops with magnetic field extrapolations"</i>	20 min
12:30-14:00	Lunch	
	Chair: Will Barnes	
14:00-14:30	Bablu Mandal (invited contribution) <i>"Spatio-Temporal Evolution of a Long-lived Supersonic Downflow above a Sunspot"</i>	30 min
14:30-14:50	Caroline Evans <i>"Understanding how Coronal Heating Affects Global Properties of the Low and Middle Corona"</i>	20 min
14:50-15:10	Thomas Howson <i>"The solar atmospheric response to coronal heating around magnetic null points"</i>	20 min
15:10-15:50	Poster Session, Coffee Break	
15:50-16:10	Shanwlee Mondal (invited contribution) <i>"Deriving Coronal Heating Scaling Laws from 3D MHD Simulations"</i>	30 min
16:10-16:30	James Klimchuk <i>"A Fresh Look at Coronal Heating Scaling Laws"</i>	20 min
16:30-16:50	Fabio Reale <i>"MHD Coronal Loop Modeling and the Scaling of Loop Plasma Properties With the Ambient Magnetic Field"</i>	20 min
16:50-17:10	Open Discussion	

	Wednesday 10 th June	
	Chair: Alexander Russell	
9:00-9:30	Rebecca Meadowcroft (invited contribution) <i>"Decay Lengths of Propagating Slow Waves in Coronal Fans with Simultaneous SDO/AIA and SolO/HRIEUV Observations"</i>	30 min
9:30-9:50	Tom van Doorselaere <i>"MAD damping of slow waves as a seismological tool for probing the multi-thermal structure of coronal loops"</i>	20 min
9:50-10:10	Hemanthi Miriyala <i>"Resonant cavity effects on slow wave spectra in the sunspot corona"</i>	20 min
10:10-10:30	Hitesh Paliwal <i>"Sloshing Oscillations in coronal loops excited by successive M- and C-Class Flares"</i>	20 min
10:30-11:30	Coffee Break – Photo	
11:30-11:50	Richard Morton <i>"Convective Origins of Alfvénic Waves in the Solar Atmosphere: Insights from DKIST"</i>	20 min
11:50-12:10	Ineke de Moortel <i>"The evolution of the coronal loop structure due to the phase mixing of high and low-frequency Alfvén waves"</i>	20 min
12:10-12:30	Hidetaka Kuniyoshi <i>"A self-consistent solar coronal heating model by Alfvénic waves"</i>	20 min
12:30-14:00	Lunch	
	Chair: Ineke de Moortel	
14:00-14:20	Luka Banovic <i>"Connecting coronal loops and kink wave heating: an analytical and numerical study"</i>	20 min
14:20-14:40	Konstantinos Karamelas <i>"Forward modelling MUSE observables of MHD waves in a coronal loop"</i>	20 min
14:40-15:20	Poster Session, Coffee Break	
15:20-15:50	Gabriele Cozzo (invited contribution) <i>"On the "cool" origin of nanojets"</i>	30 min
15:50-16:10	Patrick Antolin <i>"Compression, Impact and Hot Rebound Flows from Coronal Rain Downflows"</i>	20 min
16:10-16:30	Christopher Osborne <i>"Considering the Effects of Optically Thick Radiation in Cool Coronal Condensations"</i>	20 min
16:30-16:50	Open Discussion	
19:00-23:30	Conference Dinner at the Biscuit Factory	

	Thursday 11 th June	
	Chair: Stephane Regnier	
9:00-9:30	Bart de Pontieu (invited contribution) <i>"The Multi-slit Solar Explorer (MUSE)"</i>	30 min
9:30-9:50	Nicolas Le Nestour <i>"Study of thermal non-equilibrium in a 3D hydrodynamic simulation of an active region and comparison with EUV observables"</i>	20 min
9:50-10:10	Adrian Kelly <i>"Thermal instability in coronal loops: linking eigenvalue spectra to time-dependent evolution"</i>	20 min
10:10-10:30	Paolo Pagano <i>"MHD simulations of Nanojet with magnetic resistivity or viscosity"</i>	20 min
10:30-11:30	Coffee Break	
11:30-12:30	Summary and Discussion	
	led by James Klimchuk	
12:30-14:00	Lunch – End of meeting	

Posters

1. Gert Botha
“Sunspot torsional oscillation”
2. Cooper Downs
“Magnetic Field Line Mappings and Field-Aligned Integrals as a Dimensionality-Reducing Tool to Analyze 3D Models of Coronal Heating and Loop Hydrodynamics”
3. Clara Froment
“Thermal non-equilibrium cycles in a pseudo-streamer”
4. Erin Goldstraw
“Energy subfluxes in Reduced MHD”
5. Nicolas Poirier
“High-order multi-fluid modelling of coronal loops: collision-mediated FIP fractionation of heavy elements”
6. Rashmi Sarwal
“Wave Propagation in Horizontally Stratified Two-Layer Polytropic Model”
7. Khurram Abbas
“Wave-driven cross-field density transport in structured coronal-loop plasma”
8. Samuel Skirvin
“Modelling Torsional Alfvén Waves in Coronal Waveguides”
9. Edris Tajfirouzeh
“Spatially Coherent and Intermittent Alfvénic Fluctuations in Doppler Velocity of Polar Spicules from IRIS Observations”