COMET

CENTRE FOR THE OBSERVATION AND MODELLING
OF EARTHQUAKES, VOLCANOES AND TECTONICS

ANNUAL MEETING 2024

Day 1 – Monday 24th June

12.00 - 12.15	**Arrive at The Venue and meeting registration**
12.15 - 13.00	**Lunch**
13.00 - 13.15	**Introduction: COMET Co-Director, Professor Juliet Biggs**
13.15 - 14.30	**Science Talks 1**
14.30 - 14.45	**Tea/Coffee Break**
14.45 - 15.45	**Poster Session 1**
15.45 - 17.00	**Science Talks 2**
17.00 - 18.00	**Poster Session 2**
19.00	**Dinner (followed by COMET quiz and karaoke)**

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ANNUAL MEETING 2024

Day 2 - Tuesday 25th June

07.30 - 09.00	**Breakfast**
09.00 - 10.30	**Science Talks 3**
10.30 - 11.00	**Tea/Coffee Break**
11.00 - 11.15	**BGS/COMET Event Response Update: Dr Sue Loughlin (BGS) and Dr Laura Gregory (Leeds)**
11.15 - 12.00	**Breakout Session: Event Response**
12.00 - 13.00	**Lunch**
13.00 - 13.15	**European Space Agency's Earth Observation Programme: Dr Francesco Sarti (ESA)**
13.15 - 14.15	**Science Talks 4**
14.15 - 16.15	**Poster Session 3**
16.15 - 18.15	**COMET Sports Day (crazy golf, rounders, cricket, trail)**
19.00	**Dinner (followed by screening of Euros 2024: England vs Slovenia)**

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ANNUAL MEETING 2024

Day 3 - Wednesday 26th June

07.30 - 09.00	**Breakfast**
09.00 - 09.15	**COMET EDI Action Group Update: Dr Sam Wimpenny (Bristol)**
09.15 - 10.30	**Science Talks 5**
10.30 - 10.45	**Tea/Coffee Break**
10.45 - 11.45	**Breakout Session: Thematic Science Discussions**
11.45 - 12.45	**Parallel Meetings (participants can choose to attend any relevant meeting)** • **COMET Member Meeting** • **Fellowship Information Session (aimed at early career researchers and 3rd/4th year PhD students)** • **COMET Student Meeting** • **COMET Advisory Board Meeting**
12.45 - 13.00	**Feedback and Close**

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ANNUAL MEETING 2024

Presentations

Science Talks 1 - Monday 24 June 13.15 – 14.30

Alex Copley University of Cambridge	COMET Fieldwork Fund: The rheology and dynamics of hot mountain belts
Josefa Sepulveda University of Leeds	Current uplift episode at Askja Volcano
Qi Ou University of Edinburgh	How does Tien Shan deform?
Ben Esse University of Manchester	COMET Update: Daily Volcanic SO2 Emissions on a Global Scale
Ekbal Hussain British Geological Survey	Groundwater extraction-induced deformation and impacts on aquifer storage in Bandung, Indonesia

Science Talks 2 - Monday 24 June 15.45 – 17.00

Holly Hourston British Geological Survey	Variations in the reporting of natural disasters in the British media: A Turkiye 2023 earthquake case study
Lorenzo Mantiloni University of Exeter	The Role of Gravity in the State of Stress of Dynamic Magma Mush Reservoirs: Insights into Surface Deformation and Reservoir Failure
Max Werner University of Bristol	Credible benchmark datasets and models for machine-learning based earthquake forecasting models
Jin Fang University of Leeds	Kinematics of the Southeastern Tibetan Plateau from High-Resolution Sentinel-1 InSAR and GNSS Velocities: Implications for Seismic Hazard Analysis
Edna Dualeh University of Bristol	COMET Update: SAR backscatter for mapping volcanic flows

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Presentations

Science Talks 3 - Tuesday 25 June 09.00 – 10.30

Romain Jolivet ENS, France	Aseismic slip on continental faults as the signature of deep fluid upwelling
Chris Rollins GNS, New Zealand	Online talk: An integrated GNSS velocity field for the Alpine-Himalayan Belt
Pete Rowley University of Bristol	Revisiting pyroclastic density current deposit interpretations - implications for reconstructing eruption magnitude and dynamics
Jess Hawthorne University of Oxford	Searching for dilatancy in low frequency earthquakes
Matt Gaddes University of Leeds	COMET Update: Routine Global Volcano Monitoring Using Sentinel-1 Data and the LiCSAlert Algorithm
Cindy Lim University of Bristol	Induced Seismicity at Preston New Road: Towards a Deep earthquake catalogue with coda duration magnitudes

Science Talks 4 - Tuesday 25 June 13.15 – 14.15

Annie Winson British Geological Survey	The multihazards of sustained high heat events
Yasser Maghsoudi Mehrani **Milan Lazecky** **Scott Watson** University of Leeds	COMET Update: Updates on the COMET LICSAR system
Yangfan Huang University of Oxford	Response of river profiles to active faulting around the Diancang Shan, SE Tibetan Plateau

Science Talks 5 - Wednesday 26 June 09.15 – 10.30

Alexander Riddell University of Manchester	Hot and cold magmatic gas emissions from Soufriere Hills Volcano, Montserrat, detected with an airborne in-situ tunable diode laser system
Laura Wainman University of Leeds	COMET EDI & Outreach Fund: Earthquake Ready! DRR education through “serious games” in Nepal
Gregor Weber University of Bristol	Modelling volcano deformation over the long-term history of magmatic systems
Toño Bayona University of Bristol	How good are next-day earthquake forecasts? A comprehensive prospective evaluation of clustered seismicity models in California
Camila Pamela Novoa Lizama University of Leeds	Title TBC

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Posters

Poster Session 1 - Monday 24 June 14.45 – 15.45

1.1	**Brian Baptie** British Geological Survey	Reactivation of a regional fault system during geothermal operations
1.2	**Alexandra Morand** University of Bristol	Analogue experiment of magma reservoir fracturing under different magma buoyancy
1.3	**Jacob Connolly** University of Leeds	A Comparative Study of phase bias in C-band and L-band InSAR
1.4	**Tom Pering** University of Sheffield	Permanent UV Camera installations for the measurement of Sulphur Dioxide emissions
1.5	**Dehua Wang** University of Leeds	Analyzing interseismic strain accumulation and its termination on the central-eastern Altyn Tagh fault using high-resolution velocity fields
1.6	**Rami Alshembari** University of Exeter	Poroelastic Deformation at Soufrière Hills: A New Perspective on Volcano Deformation Dynamics
1.7	**C. Scott Watson** University of Leeds	COMET EDI & Outreach Fund: Be Curious COMET public engagement
1.8	**Eliot Eaton** University of Leeds	Combining magma flow models and deformation measurements to understand magma ascent at silicic volcanoes
1.9	**Reza Bordbari** University of Leeds	Measuring Antarctic uplift due to ice loss, from space
1.10	**Maximillian Van Wyk de Vries** University of Cambridge	Assessing present and future multihazard at glacierised volcanoes

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Posters

Poster Session 2 - Monday 24 June 17.00 – 18.00

2.1	**Lu Liang** University of Edinburgh	Monitoring and Analysis of Permafrost Deformation in Qilian mountains on QTP
2.2	**Robert Gabriel Popescu** University of Bristol	Anomaly detection for the identification of volcanic unrest in satellite imagery
2.3	**Sam Wimpenny** University of Bristol	Lithosphere Flexure and Rheology of Mountain Belt Forelands
2.4	**Isabelle Taylor** University of Oxford	Estimating volcanic ash height using buoyancy waves
2.5	**Ping He** China University of Geosciences, Wuhan	What can we learn from a geodetic source catalogue related to the Mw ≥ 5 normal-slip faulting events in Tibet?
2.6	**Alessandro Novellino** British Geological Survey	Semi-automatically mapping landslides at national scale using EGMS InSAR data
2.7	**Simon Orrego** University of Bristol	Coseismic and postseismic activity during the shallow-crustal 2020 Humahuaca earthquake, Argentina, inferred from InSAR observations
2.8	**Shailza Sharma** University of Leeds	Deep Learning for DEM Prediction: Leveraging Previous DEMs and SAR Intensity
2.9	**Ben Ireland** University of Bristol	Towards a systematic catalogue of volcano deformation source parameters from Sentinel-1 InSAR data

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Posters

Poster Session 3 - Tuesday 25 June 14.15 – 16.15

3.1	**Jess Payne** University of Leeds	Remotely sensed hazard characterisation of the Caucasus region
3.2	**Stanley Yip** University of Leeds	Exploring the effects of crustal heterogeneity on volcano deformation
3.3	**I Made Kris Adi Astra** University of Oxford	Estimating stress drops on crustal faults using inter-station phase coherence: comparison with the Ridgecrest stress drop validation study
3.4	**Pedro Alejandro Espin Bedon** University of Leeds	How are Holocene volcanoes in Ecuador deformed?
3.5	**Rebecca England** University of Sheffield	Spectroscopic measurements of volcanic gases in volcanic environments
3.6	**Gang Zheng** University of Leeds	Present-day fault slip rates throughout the India-Eurasia collision zone from high-resolution block modelling
3.7	**Jasmine Dibben** University of Exeter	Modelling hydrothermal unrest at the active volcanic caldera Deception Island, Antarctica
3.8	**Yuan Gao** University of Leeds	Postseismic deformation of the 2021 Mw 7.4 Maduo earthquake, eastern Tibet: implications for fault friction
3.9	**Muhammet Nergizci** University of Leeds	Assessing the Impact of Burst Overlap Interferogram of Sentinel-1 TOPS on Near-Fault 3D Displacement Modelling or Along-Track displacement from the Enhanced Spectral Diversity Technique
3.10	**Lin Way** University of Bristol	Modelling InSAR observations of surface deformation at Lamongan Volcanic Field, Indonesia
3.11	**Erin Mills** British Geological Survey	Multi-hazard impact chains with EO integration
3.12	**Tianyuan Zhu** University of Bristol	Monitoring Long-term Deformation of Seasonally Snow-covered Volcanoes using InSAR
3.13	**Zhen Li** University of Leeds	Deep fault zone structure and lower crust rheology beneath the northeastern Bayankara block revealed by post-seismic deformation following the 2021 Mw 7.4 Maduo Earthquake
3.14	**Donny Wahyudi** University of Edinburgh	Landscape characteristics along a high-slip strike-slip fault: The Palu-Koro Fault, Indonesia