

# COMET

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

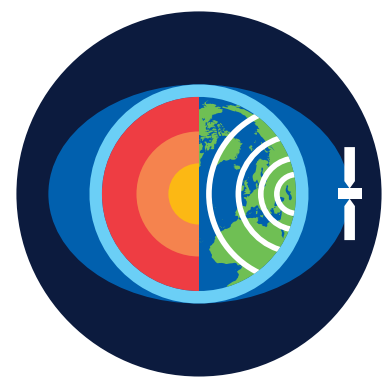
## ANNUAL MEETING 2024

### Day 1 – Monday 24<sup>th</sup> June

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

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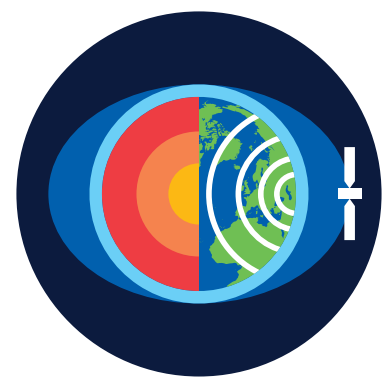
## ANNUAL MEETING 2024

### Day 2 - Tuesday 25<sup>th</sup> June

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

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## ANNUAL MEETING 2024

### Day 3 - Wednesday 26<sup>th</sup> June

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07.30 - 09.00	<b>Breakfast</b>
09.00 - 09.15	<b>COMET EDI Action Group Update: Dr Sam Wimpenny (Bristol)</b>
09.15 - 10.30	<b>Science Talks 5</b>
10.30 - 10.45	<b>Tea/Coffee Break</b>
10.45 - 11.45	<b>Breakout Session: Thematic Science Discussions</b>
11.45 - 12.45	<b>Parallel Meetings (participants can choose to attend any relevant meeting)</b> <ul style="list-style-type: none"><li>• <b><u>COMET Member Meeting</u></b></li><li>• <b><u>Fellowship Information Session</u></b> (aimed at early career researchers and 3rd/4th year PhD students)</li><li>• <b><u>COMET Student Meeting</u></b></li><li>• <b><u>COMET Advisory Board Meeting</u></b></li></ul>
12.45 - 13.00	<b>Feedback and Close</b>

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# ANNUAL MEETING 2024

## Presentations

### Science Talks 1 - Monday 24 June 13.15 – 14.30

<b>Alex Copley</b> University of Cambridge	<u>COMET Fieldwork Fund</u> : The rheology and dynamics of hot mountain belts
<b>Josefa Sepulveda</b> University of Leeds	Current uplift episode at Askja Volcano
<b>Qi Ou</b> University of Edinburgh	How does Tien Shan deform?
<b>Ben Esse</b> University of Manchester	<u>COMET Update</u> : Daily Volcanic SO <sub>2</sub> Emissions on a Global Scale
<b>Ekbal Hussain</b> 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

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



# ANNUAL MEETING 2024

## Presentations

### Science Talks 3 - Tuesday 25 June 09.00 – 10.30

<b>Romain Jolivet</b> ENS, France	Aseismic slip on continental faults as the signature of deep fluid upwelling
<b>Chris Rollins</b> GNS, New Zealand	<u>Online talk</u> : An integrated GNSS velocity field for the Alpine-Himalayan Belt
<b>Pete Rowley</b> University of Bristol	Revisiting pyroclastic density current deposit interpretations - implications for reconstructing eruption magnitude and dynamics
<b>Jess Hawthorne</b> University of Oxford	Searching for dilatancy in low frequency earthquakes
<b>Matt Gaddes</b> University of Leeds	<u>COMET Update</u> : Routine Global Volcano Monitoring Using Sentinel-1 Data and the LICSAAlert Algorithm
<b>Cindy Lim</b> 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

<b>Annie Winson</b> British Geological Survey	The multihazards of sustained high heat events
<b>Yasser Maghsoudi Mehrani</b> <b>Milan Lazecky</b> <b>Scott Watson</b> University of Leeds	<u>COMET Update</u> : Updates on the COMET LICSAAR system
<b>Yangfan Huang</b> 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

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

# ANNUAL MEETING 2024

## Posters

### Poster Session 1 - Monday 24 June 14.45 – 15.45

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

# ANNUAL MEETING 2024

## Posters

### Poster Session 2 - Monday 24 June 17.00 – 18.00

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



# ANNUAL MEETING 2024

## Posters

### Poster Session 3 - Tuesday 25 June 14.15 – 16.15

3.1	<b>Jess Payne</b> University of Leeds	Remotely sensed hazard characterisation of the Caucasus region
3.2	<b>Stanley Yip</b> University of Leeds	Exploring the effects of crustal heterogeneity on volcano deformation
3.3	<b>I Made Kris Adi Astra</b> University of Oxford	Estimating stress drops on crustal faults using inter-station phase coherence: comparison with the Ridgecrest stress drop validation study
3.4	<b>Pedro Alejandro Espin Bedon</b> University of Leeds	How are Holocene volcanoes in Ecuador deformed?
3.5	<b>Rebecca England</b> University of Sheffield	Spectroscopic measurements of volcanic gases in volcanic environments
3.6	<b>Gang Zheng</b> University of Leeds	Present-day fault slip rates throughout the India-Eurasia collision zone from high-resolution block modelling
3.7	<b>Jasmine Dibben</b> University of Exeter	Modelling hydrothermal unrest at the active volcanic caldera Deception Island, Antarctica
3.8	<b>Yuan Gao</b> University of Leeds	Postseismic deformation of the 2021 Mw 7.4 Maduo earthquake, eastern Tibet: implications for fault friction
3.9	<b>Muhammet Nergizci</b> 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	<b>Lin Way</b> University of Bristol	Modelling InSAR observations of surface deformation at Lamongan Volcanic Field, Indonesia
3.11	<b>Erin Mills</b> British Geological Survey	Multi-hazard impact chains with EO integration
3.12	<b>Tianyuan Zhu</b> University of Bristol	Monitoring Long-term Deformation of Seasonally Snow-covered Volcanoes using InSAR
3.13	<b>Zhen Li</b> 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	<b>Donny Wahyudi</b> University of Edinburgh	Landscape characteristics along a high-slip strike-slip fault: The Palu-Koro Fault, Indonesia