

MagellanPlus Workshop: Mission-specific platform approaches to assessing natural hazards that impact society

Instituto Dom Luiz, University of Lisbon, Lisbon, Portugal

7-9 July 2022

Agenda

DAY 1 (7 July 2022)

09:00 Welcome and introduction

- Presentation of Workshop Objectives
- **Session 1: Natural Hazards at Active Margins**

Keynote speaker: Rebecca Bell (Imperial College, London): IODP drilling combined with next-generation controlled-source seismic experiments to better understand fault slip

- Short talks:

Lisa McNeill (University of Southampton: Direct quantification of fault slip rate and activity from scientific ocean drilling

Katleen Wils (Ghent University): Paleoseismology from lacustrine and marine deposits

Keynote speaker: Paraskevi Nomikou (University of Athens): Volcanism and tectonics in an island-arc rift environment: IODP Expedition 398

- Discussion

12:00 Lunch

13:00 **Session 2: Natural Hazards at Passive Margins**

Keynote speaker: Gareth Davies (Geoscience Australia): From offshore to onshore probabilistic tsunami hazard assessment from far-field earthquake sources

- Short talks:

Davide Gamboa (Instituto Português do Mar e da Atmosfera/Instituto Dom Luiz): Preconditioning factors for submarine landslides

Ángela Gómez García (GFZ German Research Centre for Geosciences): Exploring the temporal evolution of the potential gas hydrate stability zones in the Caribbean Sea considering the IPCC global warming scenarios

Keynote speaker: Michael Toomey (United States Geological Survey): Reconstructing tropical cyclone frequency using deep-sea sediments—prospects and limitations

- Discussion

15:30 Working group break-out

16:30 Results from working groups

17:00 Ice Breaker and Poster Session with University of Lisbon students

DAY 2 (8 July 2022)

09:00 Start of Day 2

- **Session 3: Tropical Cyclones in the Geologic Record**

Keynote speaker: TBD

- Short talks:

Álvaro González (Centre de Recerca Matemàtica, Barcelona): Size distributions of earthquakes and tropical cyclones motivate the quest for the record of extreme events

Keynote speaker: Caroline Ummenhofer (Woods Hole Oceanographic Institution): TBD

- Discussion

12:00 Lunch

13:00 **Session 4: MSP Drilling, Logging, and Monitoring: Issues and challenges**

Keynote speaker: Margaret Stewart (British Geological Survey): TBD

- Short talks

Tiago Alves (Cardiff University): Submarine slope instability and associated geohazards: How can the IODP consortium go a step forward on the current knowledge?

Keynote speaker: Laura Wallace (GNS Science, New Zealand): Investigating slow slip events at the Hikurangi subduction zone with IODP observatories: implications for future drilling proposals to investigate transient deformation at active margins

- Discussion

15:30 Working group break-out

16:30 Results from working groups

17:00 Drinks, snacks and posters

DAY 3 (9 July 2022)

09:00 Start of Day 3

- Dedicated to proposal outline writing in working groups

12:00 Lunch

14:00 Synthesis and outcome of workshop (organizers)

15:00 End of workshop