#### InterRidge Working Group Oceanic Transform Faults FIRST WORKSHOP – Plouzané, Brest – May 22<sup>nd</sup>-24<sup>th</sup> 2018 Program

### Tuesday, May 22<sup>nd</sup>, room D at IUEM, Plouzané

- 9:00 9:15 Welcome coffee
  - 9:15 9:45 Jérôme DYMENT et Nadine LE BRIS InterRidge Program
  - 9:45 10:00 Marcia MAIA (LGO, IUEM, WG coordinator) Presentation of the WG and the workshop
- 10:00 13:00 Session 1 Tectonics and structure of transform faults (chair B. Hanan)
  - 10:00 10:30 Colin DEVEY (GEOMAR, Allemagne) A 100Ma history of oceanic spreading from the Vema Fracture Zone
  - 10:30 11:00 Coffee break and posters (Hall IUEM)
  - 11:00 11:30 Marco LIGI (CNR Bologne, Italie) **Megatransforms: a New Class of Oceanic Transform Plate Boundaries**
  - 11:30 12:00 Marcia MAIA (LDO, France) **Evolution of a multi-segmented slow-slipping transform system: the Equatorial St. Paul transform**
  - 12:00 12:30 Laurent GEOFFROY (LGO, France) Oblique continental extension and the birth of transform faults: the Gulf of California as a case-example
  - 12:30 13:00 Diane Arkay & Serge Lallemand, (CNRS Geosciences Montpellier) From transform faults to subduction
- 13:00 14:00 Lunch break (buffet at IUEM)
  - 14:00 14:30 Jason Phipps Morgan, (Royal Holloway, University of London) **Transform topography revisited**
- 14:00 16:00 Session 2 Petrology & geochemistry (chair M. Maia)
  - 14:30 15:00 Barry HANAN (UCLA, USA **A New Kind of Hotspot-Ridge Interaction: Evidence from the Southeast Indian Ridge**
  - 15:00 15:30 Daniele Brunelli, University of Modena **Temporal record of magmatic activity and source melting along fracture zones**
  - 15:30-16:00 Henry Dick, WHOI The Crust-Mantle Boundary on the Atlantis II Transform Wall, SWIR
- 16:00 16:30 coffee break and posters (Hall IUEM)
- 16:30 19:00 Session 3 Deep structure and numerical models of transform faults (chair D. Brunelli)
  - 16:30-17:00 Emily Roland, University of Washington Fault zone structure at the Gofar oceanic transform: physical properties constrained by seismic velocity and numerical models
  - 17:00-17:30 Louis Geli, IFREMER, (Understanding the relations between seismicity and fluid compressibility in submarine environments: learnings from two case studies, e.g. the Main Marmara Fault and the East Pacific transform faults

# 17:30 – 18:00 Taras Gerya, ETHZ **Nucleation and evolution of oceanic ridge-transform spreading patterns**

19:15 departure for Brest, free evening

# Wednesday, May 23<sup>rd</sup>, room D, B-220 and A-219 at IUEM, Plouzané

9:00 – 9:15 – coffee

9:15 - 10:15 Session 3 Deep, continue, structure and numerical models of transform faults (chair D. Brunelli)

9:15 – 9:45 Fan Zhang, Southern University of Science and Technology **Structure of fracture zones as resulting from geophysical constraints** 

9:45-10:15 Lars RUEPKE (GEOMAR, Germany), **Temperature, deformation, and fluid flow at oceanic transform faults in 3-D geodynamic models** 

10:15 – 11:45 coffee break and posters (Hall IUEM)

10:45 - 13:00 round tables

13:00 - 14:00 lunch

14:00 - 16:00 round tables by group of interest

16:00 – 16:30 coffee break and poster (Hall IUEM)

16:30 – 19:00 first joint discussion after the round tables

19:15 Departure to pointe St. Mathieu for the WS dinner

22:30 return to Brest

## Thursday May 24<sup>th</sup>, room D at IUEM, Plouzané

9:00 - 9:15 - coffee

9:15-10:30 continue general discussion and wrap up of the main conclusions and recommendations of the WG

10:30 – 11:00 coffee break 11:00 – 13:00 Wrap up

13:00 - 14:00 Lunch

14:30 End of WS and departure to Brest