

Università degli Studi di Trieste

PhD Course in

*Earth Science, Fluid-Dynamics, and Mathematics. Interactions and Methods*

## Presentation days: December 17-18, 2018

**Monday, December 17: main building, left side, ground floor, room V**

| <i>Time schedule</i> | <i>Speaker</i>                               | <i>Title</i>  | <i>Session chair</i> |
|----------------------|--|---|----------------------|
| <b>9:30-10:15</b>    | <b>Plenary lecture: prof. G. Pedrizzetti</b> | <b>Cardiac Fluid Mechanics: from Theoretical Modelling to Clinical Applications</b>   | P. Omari             |
| 10:25-10:50          | S. Spada (31°)                               | Biogeochemical Data Assimilation: on the Singular Evolutive Interpolated Kalman-Filter  |                      |
| <b>Coffee break</b>  |  |   |                      |
| 11:20-11:30          | C. Del Gobbo (33°)                           | Use of the Regional Climate Model, RegCM4, to assess the precipitation patterns responsible for the onset of the Tagliamento glacier before and during the LGM, in the south-eastern Alps | G. Costa             |
| 11:35-12:00          | F. Campomaggiore (31°)                       | MEANDERING. Part 1: Turbulent Mixing in Sharp Meander Bends. Part 2: Mathematical Model for Meandering Rivers with Spatial Width Variations   |                      |
| 12:05-12:20          | D. Collia (32°)                              | Fluid dynamics on the natural and prolapsed mitral valve.   |                      |
| 12:25-12:40          | D. Ertuncay (32°)                            | Analysis of Pulse Shaped Signals on Velocity Waveforms at Near Fault Stations   |                      |
| 12:45-12:55          | L. Cataldi (33°)                             | Ground motion parameters identification for seismic monitoring and multi-parametric Ground Motion to Intensity Conversion Equations definition for Italy                                  |                      |
| <b>Lunch break</b>   |  |   |                      |
| <b>14:30-15:15</b>   | <b>Plenary lecture: prof. F. Ballio</b>      | <b>Flood Risk - Research and Technology Transfer</b>  | V. Armenio           |
| 15:25-15:50          | A. Fantini (31°)                             | Climate change impact on flood hazard over Italy  |                      |
| <b>Coffee break</b>  |  |   |                      |
| 16:20-16:35          | E. Kubin (32°)                               | Levantine Intermediate Water (LIW) formation – An Argo float study from 2000-2017   | A. Aoudia            |
| 16:40-16:55          | D. Manu-Marfo (32°)                          | 3D Shear velocity image of the crust and uppermost mantle structure beneath the Tyrrhenian Basin and Margins  |                      |
| 17:00-17:10          | J. Ford (33°)                                | Seismic imaging of internal structure of submarine landslides   |                      |
| 17:15-17:40          | L. Bianchin (31°)                            | Low-Frequency Reconstruction Methods for Elastic Parameter Estimation.  |                      |

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**Presentation days: December 17-18, 2018**

**Tuesday December 18: main building, left side, 1st floor, Bachelet lecture hall**

| <i>Time schedule</i> | <i>Speaker</i>                                | <i>Title</i>  | <i>Session chair</i> |
|----------------------|---|---|----------------------|
| <b>9:30-10:15</b>    | <b>Plenary lecture:<br/>prof. N. Gugliemi</b> | <b>Discontinuous Odes: Theory and Numerical Approaches</b>  | S. Maset             |
| 10:25-10:50          | G.M. Ferrante (31°)                           | A multidisciplinary geophysical approach to recognize and quantify the gas occurrence in the Northern Adriatic  |                      |
| <b>Coffee break</b>  |   |   |                      |
| 11:20-11:45          | G. Graffino (31°)                             | Decadal variability of the Pacific Subtropical Cells and their effect on tropical climate   | C. Braitenberg       |
| 11:50-12:05          | A. Pastorutti (32°)                           | Joint Modelling of Gravity and Temperature Fields   |                      |
| 12:10-12:25          | A. Rocca (32°)                                | Large-eddy simulation of BB2 submarine  |                      |
| 12:30-12:40          | F. Maddaloni (33°)                            | Lithospheric structure and tectonic evolution of intracratonic basins: the Congo basin natural laboratory   |                      |
| 12:45-12:55          | S. Marković (33°)                             | Numerical simulation of wind driven circulation in stratified lakes: setup of internal stratification and internal waves                                |                      |
| <b>Lunch break</b>   |   |   |                      |
| <b>14:30-15:15</b>   | <b>Plenary lecture:<br/>dr. V. Huvenne</b>    | <b>Using Robotic Technology to Study Submarine Canyons in all their Facets</b>  | S. Ceramicola        |
| 15:25-15:50          | O. Candoni (31°)                              | Morphodynamic evolution of mass movements in the Crotona-Spartivento forearc basin, southern Italy, through geological and geophysical data integration |                      |
| <b>Coffee break</b>  |   |   |                      |
| 16:20-16:45          | E. Terzic (31°)                               | Marine bio-optical properties applied to biogeochemical modelling   | S. Salon             |
| 16:50-17:05          | M. Velicogna (32°)                            | Provenance evolution of the Julian Flysch Basin through geochronological and geochemical study of detrital zircon and rutile                            |                      |
| 17:10-17:20          | T.F.M. Pivetta (33°)                          | Gravimetry for studying underground water circulation in Karst  |                      |
| 17:25-17:35          | H.R. Thapa (33°)                              | Recovering Crustal Discontinuities by Autocorrelation of Teleseismic P coda wave and Noise.   |                      |