

Winter school on

“Numerical Simulation of Turbulent Flows and Sediment Transport”

11th–13th February 2015, UCY Campus, Nicosia

Contact / information: Dimokratis G.E. Grigoriadis (grigoria@ucy.ac.cy)

| Time | Day 1, 11 th Feb 2015, Winter school | Presenter |
|--------------------------------------|---|-------------------------|
| 9 ^{:00} -9 ^{:30} | Welcome and coffee | |
| 9 ^{:30} -10 ^{:45} | Introduction to CFD simulations equations, numerical methods, codes, applications | D.G.E. Grigoriadis, UCY |
| 11 ^{:00} -12 ^{:15} | Introduction to turbulence Overview, challenges, modeling approaches (LES/DNS/RANS) | D.G.E. Grigoriadis, UCY |
| 12 ^{:30} -13 ^{:45} | Homogeneous & non-homogenous turbulence, experimental databases to validate CFD codes | R. Ferreira, IST |
| 14 ^{:00} -15 ^{:00} | Lunch break | |
| 15 ^{:00} -16 ^{:15} | LES, theory and applications | V. Armenio, UTR |
| 16 ^{:30} -18 ^{:00} | Numerical simulation of sediment transport Clear-water and mixture layer models | S. Soares Frazao, UCL |

| Time | Day 2, 12 th Feb 2015, Winter school | Presenter |
|--------------------------------------|--|--|
| 9 ^{:00} -10 ^{:15} | Applications of the immersed boundary method wall bounded, sediment-laden and free surface flows | A Dimas, UPAT |
| 10 ^{:30} -11 ^{:15} | Upscaling approaches to turbulent environmental flows | M. Franca, EPFL |
| 11 ^{:30} -12 ^{:00} | Coffee break | |
| 12 ^{:00} -13 ^{:15} | Research activities of the <u>UCY Oceanography Center</u> | George Georgiou ⁽¹⁾ (UCY) |
| 13 ^{:30} -14 ^{:45} | Marie-Curie Proposals in Horizon 2020 | P. Papazoglou ⁽²⁾ |
| 15 ^{:00} -16 ^{:00} | Wrap up / Discussion | |
| 16 ^{:00} -16 ^{:30} | Coffee break | |
| 16 ^{:30} -18 ^{:00} | 3rd Supervisory Board Meeting | |
| 20 ^{:00} | Dinner | |

⁽¹⁾ Potential Partner for future proposals

⁽²⁾ NCP Marie Curie Research Promotion foundation, Cyprus

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| Time ^(*) | Day 3, 13 th Feb 2015, Workshop | Presenter |
|--------------------------------------|---|-------------------------|
| 9 ^{:00} -9 ^{:30} | Phase coupling regimes & sediment transport | S. Fonias, (ESR, UCY) |
| 9 ^{:30} -10 ^{:00} | Free surface flow modeling & sediment transport | C. Frantzis, (ESR, UCY) |
| 10 ^{:00} -10 ^{:30} | Flow and sediment transport in rivers with cross-sections of arbitrary shape | F. Franzini (ESR, UCL) |
| 10 ^{:30} -11 ^{:00} | Coffee break | |
| 11 ^{:00} -11 ^{:30} | Steep-slope effect in sediment transport modelling. Comparison with experimental measurements | C. Juez (ER, UCL) |
| 11 ^{:30} -12 ^{:00} | “to be announced...” | I. Fent (ESR, UCL) |
| 12 ^{:00} -12 ^{:30} | Recent progress in two-phase modelling and simulation of subaqueous granular flows | D. Monsorno (ESR, UCL) |
| 12 ^{:30} -13 ^{:30} | Lunch break | |
| 13 ^{:30} -14 ^{:00} | Preparatory work for the experiments on sediment-laden density underflows and a word on the progress of the activities at LCH-EPFL | J. Zordan (ESR, EPFL) |
| 14 ^{:00} -14 ^{:30} | Dynamics of particle entrainment and disentrainment | F. Antico (ESR, IST) |
| 14 ^{:30} -15 ^{:00} | LES of suspended sediment transport | M. Jourabian (ESR, UTR) |
| 15 ^{:30} -16 ^{:00} | Two-dimensional 2-phase modeling of controlled sediment deposition during floods: the case study of the Bevieux off-stream settling basin | M. Launay (ER, STUCKY) |
| 16 ^{:00} -16 ^{:30} | Discussion | |

(*)Note: each workshop presentation is planned for 20 minutes, followed by 10 minutes of questions/discussion