SEMINAR ANNOUNCEMENT

Theory and practice of physical modelling

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Wednesday 14 February 2024, h.12:00, Room IDRA

Analytical, numerical, and experimental investigations should be used to solve engineering problems. Analytical models, even if simplified, can describe the main features of phenomena to be studied. The results can be used to guide numerical simulations that can describe specific problems by removing (some of the) assumptions of the analytical model. Both of them can be used to design ad hoc experimental investigations and then to verify numerical results. The seminar aims to describe the basics of physical modeling theory. Then, a series of practical aspects in designing and performing experimental investigations are described in detail. A case study, from design to analysis is then described.

Marcello Di Risio is Full Professor in Maritime Engineering. He is the Head of the Laboratory of Environmental and Maritime Hydraulics (LIam) of the Department of Civil Engineering, Building Architecture and Environmental of the University of L'Aquila. With many years of experience in the field of hydraulic and maritime construction, his main research topics are: mathematical and experimental modeling of coastal morphodynamic phenomena; hydraulic risk analysis; mathematical and experimental modeling of waves generated by landslides; real-time identification systems of long waves; real-time forecasting systems of wave motion and water levels; mathematical modeling of coastal hydrodynamic phenomena; mathematical and experimental modeling of maritime works; mathematical and experimental modeling of hydraulic works; development of devices for energy extraction from waves.

All interested people are invited to attend the seminar, in particular Master students in Environmental and Civil Engineering, PhD students and researchers in water science and engineering.

For virtual participation or further information, contact *Prof. Maurizio Brocchini* (DICEA) at: m.brocchini@univpm.it