

**Andrea Defina.** Born in Venice, Italy, on March 31st, 1956.

### **Education**

C.E. Hydraulic Engineering, University of Padua, Italy, 1982

Ph.D Hydrodynamics, University of Padua, Italy, 1988

Assistant Professor, Faculty of Engineering, University of Padua, Italy , 1990-1998

Associate Professor, Faculty of Engineering, University of Padua, Italy , 1998-2010

Full Professor, Faculty of Engineering, Dep. ICEA, University of Padua, Italy , 2010-present

### **Current teaching**

Hydraulics, 12CFU, Environmental Engineering

Advanced Hydraulics, 6CFU, Civil Engineering

Since 1990 Defina supervised over 100 Master's Students and over 30 Bachelor's Students, both in Civil Engineering and Environmental Engineering, and 10 Ph.D Students in Civil and Environmental Engineering Sciences.

### **Current academic employment**

Deputy Director of the Department of Civil, Environmental, and Architectural Engineering, University of Padua, Italy

Chairman, Bachelor's and Master's Programs in Civil Engineering

Member of the Scientific Board of the PhD School in Civil and Environmental Engineering Sciences

Director of the PINECA (Computing Lab.-ICEA)

Coordinator of SOCRATES-ERASMUS student exchange programs

### **Research areas**

- SHALLOW WATER FLOWS: two-dimensional and three-dimensional mathematical modeling (including transport and diffusion, and wind wave generation and propagation); shallow flows over partially dry domains; interacting surface and subsurface flow.
- RIVER AND LAGOON MORPHODYNAMICS: two-dimensional morphodynamic modeling (free bar evolution, tidal basins evolution).
- NEAR-WALL COHERENT TURBULENT STRUCTURES: experimental studies on near-wall turbulent coherent structures over rough wall.
- DENSITY CURRENTS: stability of uniform/accelerated stratified shear flow.
- VEGETATED OPEN CHANNEL FLOW: Flow and turbulence assessment; floating seeds dynamics
- BASIC FLUID MECHANICS: Hysteretic behavior of a supercritical flow approaching an obstacle, stability of a stationary hydraulic jump in an upward sloping channel.

### **Refereeing**

*Journals:* Water Resources Research; Advances in Water Resources; Continental Shelf Research; Journal of Hydraulic Research; Journal of Geophysical Research; Journal of Fluid Mechanics; Hydrological Processes; Geophysical Research Letters; Journal of Hydraulic Engineering; Journal of Coastal Research; Chemical Engineering and Processing: Process Intensification.

### **Publications**

Defina is author of more than 100 papers, among which 30 in peer-review journals.

A list of selected papers can be found at <http://www.image.unipd.it/a.defina/> (some are available for download)