

# WIN – 2016

## 3d International Conference on Wave Interaction

### April 25–28, 2016

#### Venue

In the wave interaction theory nonlinear problems are treated in broad categories, on the basis of mathematical rather than physical similarity. This is possible due to the fact that many ideas and phenomena recur in such apparently diverse fields as rigid-body and fluid mechanics, plasmas physics, optics, biology, economics, etc. The theory of wave interaction aims at describing the dynamical and statistical properties of a weakly nonlinear wave system. Dynamical characteristics are used to describe phenomena occurring due to interactions of a small number of harmonics, while statistical approach is used for describing energy distribution over scales in the wave systems with distributed initial state. In the last few decades a great progress has been achieved in the theoretical understanding of statistically described wave systems. However, controlled experiments specifically designed to study nonlinear wave interaction are relatively scarce, and there is still a lot of open problems demanding detailed studies. The principal idea of the biannual WIN-conference series launched in 2012 is to discuss and put forward a list of regularly observable wave interaction phenomena which are not fully explained by the existing theories thus opening new avenues for further investigations. A subject of the special interest is the nature of rogue waves appearing in the oceans, plasmas and lasers.

#### Key-note lecturers:

- ▶ Pat DIAMOND, University of California, San Diego, La Jolla, USA
- ▶ Chiang C. MEI, Massachusetts Institute of Technology, Cambridge, MA USA
- ▶ Dmitry PELINOVSKY, McMaster University, Hamilton, Ontario, Canada
- ▶ Antonio PICOZZI, CNRS, University Bourgogne Franche-Comte, Dijon, France
- ▶ Lev SHEMER, Tel-Aviv University, Tel-Aviv, Israel
- ▶ Victor SHRIRA, Keele University, Keele, UK

#### Speakers:

- ▶ AMIRANASHVILI, Shalva (Germany)
- ▶ ANNENKOV, Sergei (UK)
- ▶ BANDELOW, Uwe (Germany)
- ▶ BUGAYCHUK, Svitlana (Ukraine)
- ▶ DEGASPERIS, Antonio (Italy)
- ▶ EL, Gennady (UK)
- ▶ GUAN, Huang (USA)
- ▶ FALCON, Eric (France)
- ▶ GRIMSHAW, Roger (UK)
- ▶ KADRI, Usama (USA)
- ▶ KUZNETSOV, Evgenii (Russia)
- ▶ LORD, Alberto (Italy)
- ▶ MAIOCCHI, Gabriel J. (UK),
- ▶ MUKHERJEE, Abhik (India)
- ▶ ONORATO, Miguel (Italy)
- ▶ PELINOVSKY, Efim (Russia)
- ▶ PROMENT, Davide (UK)
- ▶ RANDOUX, Stephane (France)
- ▶ SLUNYAEV, Alexey (Russia)
- ▶ SMOLYAKOV, Andrei (Canada)
- ▶ STEINMEYER, Günter (Germany)
- ▶ SURET, Pierre (France)
- ▶ TALIPOVA, Tatiana (Russia)
- ▶ TOBISCH, Elena (Austria)

#### Organization:

- ▶ Renata FLEISCHNER (renata.fleischner@jku.at)



#### Scientific Coordinators:

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- ▶ Miguel ONORATO (University of Turin, Italy)
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