

INSTITUT D'ÉTUDES SCIENTIFIQUES DE CARGÈSE

Cargèse International School 2019

Waves, Instabilities and Turbulence in Geophysical and Astrophysical Flows (WITGAF2019)

July 08 - 20, 2019

Website

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80 years of building new worlds
through knowledge



The goal of this school/workshop is to bring together researchers interested in fundamental fluid mechanics coming from geophysical and astrophysical communities as well as from physics and engineering departments in order to discuss flows where stratification, rotation and magnetic field play an important role. Oceans, atmospheres, planetary cores, stellar interiors and accretion disks are among the systems that will be considered. Emphasis will be put on simple models where basic phenomena such as waves, instabilities and turbulence can be described theoretically. The event will provide basic courses as well as advanced lectures on recent research results with the following program:

- One week of school with five 4h courses, five 1h invited lectures and a poster session (8-13 july).
- One week of workshop with six 1h invited lectures and 60 contributed talks (14-19 july).

Main topics will include

Fluid mechanics topics such as

- Inertial waves and internal waves (attractors, internal shear layers, nonlinear interactions)
- Instabilities (MRI, SRI, ZVI, ...)
- MHD waves and Dynamo (Geodynamos, Experiments)
- Turbulences (wave turbulence, rotating/stratified/MHD turbulence)

applied to

- Oceans
- Atmospheres
- Planetary cores
- Stellar interiors
- Accretion disks

Eminent scientists in the field will animate the school/workshop. These include:

T. Akylas (Boston, US), C. Baruteau (Toulouse, FR), S. Fauve (Paris, FR), K. Julien (Boulder, US), S. Galtier (Palaiseau, FR), R. Kerswell (Cambridge, UK), H. Latter (Cambridge, UK), D. Lecoanet (Princeton, US), S. Legg (Princeton, US), G. Lesur (Grenoble, FR), J. Noir (Zurich, CH), P. Read (Oxford, UK), T. Rogers (Newcastle, UK), C. Staquet (Grenoble, FR), S. Tobias (Leeds, UK), K. Zhang (Exeter, UK)

Scientific Committee

Jon Aurnou (Los Angeles, USA), Phil Marcus (Berkeley, USA), Gordon Ogilvie (Cambridge, UK), Andrew Soward (Newcastle, UK), Chantal Staquet (Grenoble, France), Bruce Sutherland (Edmonton, Canada)

Organization Committee

Benjamin Favier, Michael Le Bars, Stéphane Le Dizès, Patrice Le Gal, Patrice Meunier (IRPHE, Marseille, FR)

Application and registration

<https://witgaf2019.sciencesconf.org/>

Contact : witgaf2019@sciencesconf.org

Application Deadline: 2019, 01 February