

Call for papers International conference

Vortices and coherent structures: from ocean to microfluids

August 28-31, 2017, V.I. Il'ichev Pacific Oceanological Institute, Russian Academy of Sciences

Scientific Committee

Scope

The last few decades have shown that serious hopes and prospects for progress in understanding real turbulent vortex motions are essentially related to combined use of mathematical methods, computer simulation, laboratory and in situ experiments. These approaches have led to interesting results that allow us to study the processes from new perspectives. The main goal of this conference is to bring together leading scientists in this field, promote a cross-disciplinary interaction among mathematicians, physicists and oceanographers and an exchange of views and experience, propose new avenues for research in the future. The conference will focus on observational, theoretical and applied aspects of evolution of various flows and coherent structures in fluids. These include different theoretical and observational aspects of study of jets, eddies, vortices and other coherent structures in the ocean and atmosphere. Much attention will be given to the studies of nonlinear regular and chaotic regimes of vortex interactions, advective and convective motions.

In the framework of this conference, we also plan to organize an one-day mini symposium «Subsurface meso- and submesoscale vortices in the Atlantic and Indian oceans» for the members of the Russian-French Grant entitled identically and supported by the RFBR and the CNRS.

The topics of interest include but are not limited to:

- Mathematical methods in the theory of vortices;
- Methods of statistical hydrodynamics;
- Lagrangian methods to study coherent structures;
- Problems of geophysical hydrodynamics;
- Coherent mesoscale and submesoscale structures in the ocean: jets and eddies;
- Computer-assisted methods in studying vortical processes;
- Laboratory experiments in studying turbulence and vortices.
- Observation of mesoscale and submesoscale eddies in the ocean.

The organizing committee invites researchers and engineers who study the vortical flows using theoretical and experimental methods. The active participation of the students interested in this research field is also welcome.

Gert-Jan F. van Heijst, Technische Universiteit Eindhoven, Netherlands (Chairman)

Vyatcheslav Lobanov, V.I. Il'ichev Pacific Oceanological Institute, Vladivostok, Russia (Chairman)

Sergev Prants, V.I. Il'ichev Pacific Oceanological Institute, Vladivostok, Russia (Vice-Chairman)

Konstantin Koshel, V.I. Il'ichev Pacific Oceanological Institute, Vladivostok, Russia

Jacques Verron, CNRS, Laboratoire de Glaciologie et de Géophysique de l'Environnement, Grenoble, France Xavier Carton, Université Bretagne Occidentale, Laboratoire de physique des oceans, UBO/UEB, Brest, France

Jiazhong Zhang, School of Energy and Power Engineering, Xian Jiaotong University, Xian, P.R. of China

Gregory Reznik, P.P. Shirshov Institute of Oceanology of RAS, Moscow, Russia

Mikhail Sokolovskiy, Water Problems Institute of RAS, Moscow, Russia

Talgat Kilmatov, Far Eastern Federal University, Vladivostok, Russia

Ana Maria Mancho, Instituto de Ciencias Matematicas Consejo Superior de Investigaciones Cientificas, UAM, Madrid, Spain

Yasuhide Fukumoto, Institute of Mathematics for Industry, Kyushu University, Fukuoka, Japan

Support

Russian Academy of Sciences, Russian Foundation for Basic Research (RFBR), V.I. Il'ichev Pacific Oceanological Institute, Russian Academy of Sciences.

Important dates

Conference "Vortices and coherent structures: from ocean to microfluids" will be held in August 28-31, 2017

Registration deadline: March 15, 2017

Practical information

Details about abstract format, registration, hotel reservation and the conference program will appear at the conference website

http://vcs.poi.dvo.ru/.

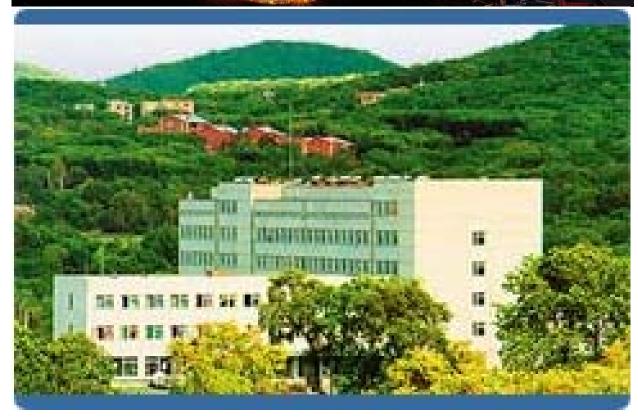
Contact the organizers at kykoshel@poi.dvo.ru or koshelky@gmail.com for further information.

Location

The conference will take place at the V.I. Il'ichev Pacific Oceanological Institute, Vladivostok.







The conference hall locates rather far from city center and recommended hotels. We plan to organize a bus each morning for transportation of conference participants to the conference hall location and back after the end of sessions.

