



**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)

**Sergey 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 océans, 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 [kvkoshel@poi.dvo.ru](mailto:kvkoshel@poi.dvo.ru) or [koshelkv@gmail.com](mailto:koshelkv@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.

