



9-th International  
Conference and Scientific  
School for Young Scien-  
tists

## WAVES AND VORTICES IN COMPLEX MEDIA

Moscow

05 - 07 December 2018

Conference venue is A.Yu. Ishlinskiy Institute for Problems in Mechanics of the RAS (IPMech RAS)



Moscow 119526, prospect Vernadskogo 101/1

### ANNOUNCEMENT INVITATION TO PARTICIPATE

The program of the school includes plenary lecture, oral and poster presentations. Proceedings of the school will be published

### INFORMATION FOR PARTICIPANTS

Conference languages: Russian and English. Participants present electronic version of the:

- **Registration form;**

- **Presentation materials** prepared in MS Word, 12 pt, up to 3 pages framed by 16×24 cm. **TITLE OF THE PRESENTATION, authors' names and addresses** should be as per sample given at the conference website.

Conference information package will be distributed at the registration desk. Simultaneously publication of the full texts of talks in the indexed journal will be prepared (see Organizational Committee Announcements).

The conference program provides lectures (30 min), oral talks (15 min) and poster presentations (stand of 2×1 m + short informative presentation up to 5 minutes). Conference rooms are equipped with blackboards, screens, slide- and video-projectors.

#### KEY DATES

Registration form and presentation materials  
**before October 01, 2018**

Author notification on acceptance

**before October 15, 2018**

#### REGISTRATION FEE

Regular participant fee is 40 USD (2000 rub for Russian participants) used to cover the cost for publishing materials and maintenance of the work of the school.

Registration fee for young scientists (up to 35 years old) is 500 rub.

The fee is paid whether via the bank transfer (requisites are available on request) or in cash at the registration desk.

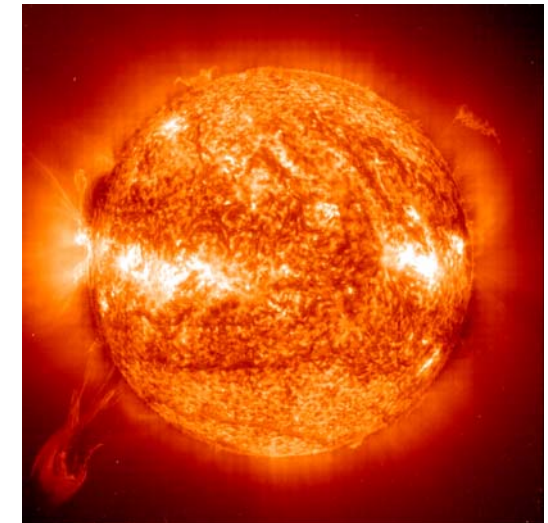
#### ACCOMMODATION

Participants should arrange their accommodation in hotels on their own ([booking.com](http://booking.com), [trivago](http://trivago)).

### SCIENTIFIC PROGRAM

- **Fundamental equations and constitutive models of flows in complex media;**
- **Methods of mathematical and laboratory modeling of complex media flows;**
- **Computational mechanics – methods and results;**
- **Waves, vortices, ligaments and turbulence;**
- **Mechanics of inhomogeneous fluids, gas-liquid systems and suspensions in external electric and magnetic fields;**
- **Modern experimental technique and equipment;**
- **Technical and technological applications**

Papers on close topics can be included in the school. Number of papers presented by one author is not limited.

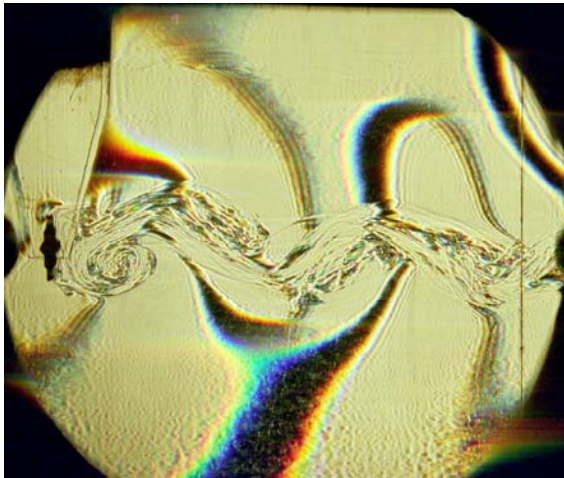


#### REGISTRATION

Registration will take place in the IPMech RAS during the school, starting from 05 December 2018.

## INTERNATIONAL PROGRAM COMMITTEE

Corr.m. RAS A.I. Avetisyan (co-chair),  
Corr.m. RAS D.A. Gubaidullin (deputy chair),  
Dr. E.V. Ermanyuk, Prof. M. Sommerfeld (Ger),  
Acad. RAS A.G. Kulikovskiy (chair), Acad. RAS  
I.I. Mokhov, Prof. J.M. Redondo (Spain), Dr.  
S.V. Strijhak, Prof. S.F. Urmacheev, Prof.  
P. Fraunie (Fra), Prof. Ya. Fukumoto (Jap), Dr.  
T.O. Chaplina (sc. secr.), Prof.  
Yu.D. Chashechkin (co-chair), Corr.m. RAS  
A.N. Shipluk.



Waves, vortices and ligaments in the stratified flow behind the plate

### Contacts

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## GENERAL INFORMATION

The updating of techniques for remote and contact measurements, the development of mathematics and the improvement of computer technology have opened up new opportunities for studying waves and vortices as key components of flows, which play a dominant role in the dynamics of natural and industrial systems, and form the basis for a number of high-performance technologies.

The study of periodic flows is of interest for mechanics and a number of related disciplines such as physics, chemistry, biochemistry, in which the processes of transport and redistribution of matter are studied.

The processes have become more complicated, as well as the studied media themselves which are, as a rule, multiphase, multicomponent, stratified. The development of new approaches and the extensive stream of experimental data have contributed to the development of theoretical hydrodynamics which, in turn, formulates more profound requirements for methods and techniques of hydrodynamic experiment. Solving the standing scientific problems will help to improve the description of the environment, refine the forecast and develop new flow control methods in natural systems and technological processes.

## HOW TO GET

Metro Station "Yugo-Zapadnaya". The exit from the last subway car. Then walk about 10 minutes to IP-Mech RAS / by bus No. 668 or trolleybus No. 34 to the stop "MIREA".



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## SPONSORS

Federal Agency for Scientific Organizations  
Russia Foundation for Basic Research  
Russian Academy of Sciences

## Organizers

A.Yu. Ishlinsky Institute for Problems in  
Mechanics of the RAS  
Ivannikov Institute for System Programming  
of the RAS

The traditional event continues a series of conferences, including schools on actual problems of theoretical and experimental fluid mechanics held in 2010, 2011, 2012, 2013, 2014, 2016 and 2017 in Moscow and 2015 in Kaliningrad.

Scientists and students of all specializations are invited to participate in the conference and school, including experimentalists, analytical and numerical mathematicians. Lectures are delivered by well-known experts in the key branches of mechanics and mathematics, as well as young scientists.