



Thirteenth International  
Conference – School of  
Young Scientists

## WAVES AND VORTICES IN COMPLEX MEDIA

**Moscow**

**30 November – 02 December 2022**

Conference venue is Ishlinsky Institute for  
Problems in Mechanics RAS (IPMech  
RAS)



Moscow 119526, Vernadskogo prospect, 101/1

**ANNOUNCEMENT  
INVITATION TO PARTICIPATE**  
Website: [www.ipmnet.ru](http://www.ipmnet.ru)

**Contacts:**  
**Conference secretary**

**Elena V. Esina**

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Phone +7 (495) 434-21-49

### 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** prepared as per sample given at school  
website.

The program will include invited (30 min) and oral  
talks: regular (15 min) and informative (3 min +  
poster at A0). Meeting rooms are equipped with  
boards, screens, video projectors. As appropriate,  
it will be in-person (traditional form) and on-line  
(virtual form) conference.

### AXIOMS BEST PAPER AWARDS



We are pleased to announce the opening of a  
competition for "Best Paper Award", sponsored by  
the journal *Axioms*. The awards consist in:

1st prize: 200 USD + a certificate  
2nd prize: 150 USD + a certificate  
3rd prize: 100 USD + a certificate

### KEY DATES

Registration form and extended abstracts  
**before October 01, 2022**

Author notification on acceptance  
**before October 10, 2022**

### REGISTRATION FEE

For regular participant fee is **2000 rub.** For young  
scientists (under 35 years) – **500 rub.**

The fee can be paid in cash at the registration desk  
or by bank transfer order.

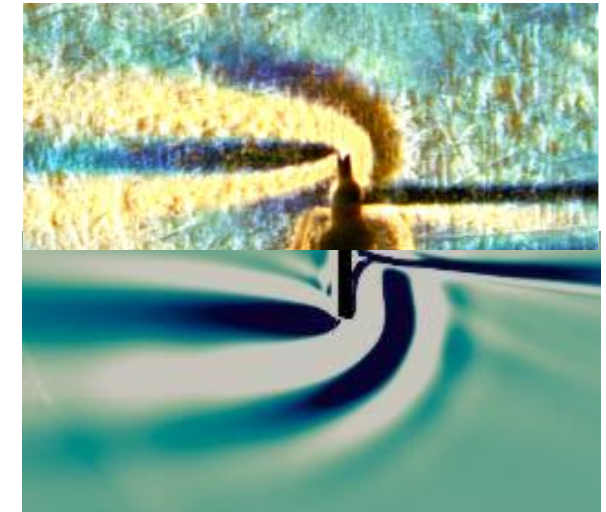
Requisites are available on request.

### ACCOMMODATION

A wide range of hotels of various comfort levels in  
the vicinity of the conference venue is available.

### SCIENTIFIC PROGRAM

- **Systems of fundamental equations and constitutive models of complex media flows;**
- **Methods of mathematical simulation and laboratory modeling of flows;**
- **Waves, vortices, coherent structures, turbulence and ligaments in fluid and gas flows;**
- **Mechanics of simple and complex liquids with phase transitions, gas- fluid systems and suspensions, including flows in external electric or magnetic fields and extreme conditions;**
- **Technique of modern experiment;**
- **Engineering and technological applications.**



Schlieren and calculated stratified flow patterns  
around a vertical plate (*Fluids*, **2021**, 6, 310)

### REGISTRATION

Registration will take place in IPMech RAS (room  
235) starting from 30 November 2022

## INTERNATIONAL PROGRAM COMMITTEE

Acad. RAS A.G. Kulikovskiy (honorary chair), Prof. Yu.D. Chashechkin (co-chair), Dr. S.E. Yakush (co-chair), Corr.m. RAS D.A. Gubaidullin (deputy chair), Prof. S.F. Urmacheev (deputy chair), E.V. Esina (sci. secr.), Dr. V.G. Baydulov, Prof. T. Bodnar (Czech), Dr. O.G. Chkhetiani, Dr. E.V. Ermanyuk, Prof. P. Fraunie (Fra), Prof. Ya. Fukumoto (Jap), Corr.m. RAS A.M. Gaifullin, Prof. A. Herczynski (USA), Acad. D.M. Klimov, Prof. A.A. Kosinov, Prof. A.N. Osiptsov, Acad. O.V. Rudenko, Prof. R.M. Vilfand, Dr. A.G. Zatsepin



Inclined fiber loops under the primary cavity of a drop impact with chemical reaction (Doklady RAS, 2021, 66(10))

The conference school program includes invited and oral presentations (regular and informative). Materials of accepted talks will be published in the Conference Proceedings Volume. Selected papers will be recommended for publication in Journals "Fluid Dynamics", "Applied Mathematics and Mechanics" and "Axioms".

### Contacts

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## GENERAL INFORMATION

Update technology of contact and remote sensing, development and improvement of mathematics and computing have opened up new opportunities to study the waves and vortices - key components of flows, which play a dominant role in the dynamics of natural and industrial systems, and form the basis of a number of high-performance technologies.

The study of periodic flows tends of interest for mechanics and a number of related disciplines: physics, chemistry, biochemistry, in which transport processes and redistribution of materials are studied. Their investigation is of interest to a number of related disciplines, such as chemistry, biology, pharmacy, which involves the transport processes and the redistribution of the matter.

Physical processes in the investigated media, usually multi-phase, multi-component, and stratified are complicated. Solving the scientific problems will improve the description, specification and development of the forecast of new management trends in natural systems and processes.

### HOW TO GET

Metro Station "Yugo-Zapadnaya". The exit from the last subway car. Then walk about 10 minutes to IPMech RAS.



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### SPONSORS

Russian Academy of Sciences  
Ishlinsky Institute for Problems in Mechanics RAS  
Axioms

### ORGANIZERS

Ishlinsky Institute for Problems in  
Mechanics RAS

Steklov Mathematical Institute of RAS

Upcoming event continues a series of schools on actual problems of theoretical and experimental fluid mechanics in 2010, 2011, 2012, 2013, 2014 Moscow, 2015 in Kaliningrad, 2016, 2017, 2018, 2019, 2020, 2021 in Moscow

Scholars of all specializations: experimentalists, mathematicians (both analytic and numeric) are invited to participate.

Lectures will be delivered by experts in the key branches of mechanics and mathematics, as well as young scientists.