

第二届中俄物理教学研讨会  
The 2nd Sino-Russian Physics Teaching Seminar

# 会议手册

Meeting Manual

中国·哈尔滨    俄罗斯·圣彼得堡  
Harbin, China    St. Petersburg, Russia  
2022年11月16日  
November 16, 2022

## 第二届中俄物理教学研讨会

### The 2nd Sino-Russian Physics Teaching Seminar

在“一带一路”倡议背景和中共中央国务院印发的《深化新时代教育评价改革总体方案》指导下，基于俄罗斯在科学技术和教育方面强劲的实力和底蕴，为加强中俄物理教学相关领域间的交流与合作、推动我国物理类课程教学改革、提高课程教学质量，由哈尔滨工业大学、圣彼得堡国立大学主办，哈尔滨工业大学物理学院承办的第二届中俄物理教学研讨会定于2022年11月16日召开。此次会议将采用线上与线下相结合的方式，邀请中俄物理教学著名专家、教师通过专题报告介绍中俄物理类课程的教学改革进展、研究热点和未来发展方向，从不同角度研讨物理类课程教学前沿科学和关键问题。

#### 一、会议基本信息

主办单位：哈尔滨工业大学、圣彼得堡国立大学

承办单位：哈尔滨工业大学物理学院

会议时间：2022年11月16日

会议地点：线上（Zoom：872 7708 6016 入会密码：1116）

线下（哈尔滨工业大学物理学院 717 会议室）

（圣彼得堡国立大学物理学院）

#### 二、会议议题

会议旨在交流讨论提升物理学专业对人才的吸引力，提高物理拔尖学生的科研创新能力，推进物理实验教学模式和课程教学改革，拓展线上教学新思路，加强研究生课程教学与创新培养质量，以及交流讨论其他物理教学相关事宜。

### 三、会议组委会

#### 会议主席

沈 毅 哈尔滨工业大学副校长

Valeria Malomuzh 圣彼得堡国立大学国际事务副校长

#### 组委会委员

赵雅琴 哈尔滨工业大学本科生院常务副院长

高 栋 哈尔滨工业大学研究生院常务副院长

熊 健 哈尔滨工业大学国际合作部常务副部长

田 浩 哈尔滨工业大学物理学院院长

Alexey Titov 圣彼得堡国立大学物理学院副院长

Nikolay Tsvetkov 圣彼得堡国立大学物理学院科研副院长、俄罗斯科学院通讯院士

Vladimir Chirkov 圣彼得堡国立大学物理学院教学副院长

张 宇 哈尔滨工业大学物理学院副院长

霍 雷 哈尔滨工业大学物理学院、教育部大学物理教指委委员

Aleksandr Shchekin 圣彼得堡国立大学物理学院统计物理学系主任、俄罗斯科学院通讯院士

Nikolay Timofeev 圣彼得堡国立大学物理学院光学系主任

Vladimir Mikushev 圣彼得堡国立大学物理学院联邦物理学教育与方法协会会员

李 均 哈尔滨工业大学研究生院培养处副处长

丁卫强 哈尔滨工业大学物理学院院长助理

袁承勋 哈尔滨工业大学应用物理系主任

#### 四、会议地方筹备委员会

李 立 哈尔滨工业大学物理学院国际交流与合作办公室

Marina Shelyapina 圣彼得堡国立大学物理学院核物理研究系

Elena Aksenova 圣彼得堡国立大学物理学院统计物理学系

谭 鹏 哈尔滨工业大学物理学院光电信息科学与工程系

Vasiliy Buslov 圣彼得堡国立大学物理学院计算物理学系

李俊庆 哈尔滨工业大学物理学院国际交流与合作办公室

王 莹 哈尔滨工业大学物理学院应用物系

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#### 会务组联系方式

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#### 五、会议日程概览

2022 年 11 月 16 日

15:00-15:30 第二届中俄物理教学研讨会开幕式

15:30-17:10 第二届中俄物理教学研讨会 I

18:00-19:40 第二届中俄物理教学研讨会 II

19:40-20:00 第二届中俄物理教学研讨会闭幕式

## **The 2nd Sino-Russian Physics Teaching Seminar**

Under the background of the Belt and Road Initiative and the guidance of “the General Plan issued by the CPC Central Committee and the State Council to Deepen the Reform of Education Evaluation in the New Era”, and on the basis of Russia's powerful strength and profound heritage in the science and education, The 2nd Sino-Russian Physics Teaching Seminar aims to strengthen academic exchanges and cooperation between China and Russia in the field of physics teaching, and to promote the reform of physics courses teaching, improve the quality of physics courses teaching. The 2nd Sino-Russian Physics Teaching Seminar will be hosted by Harbin Institute of Technology (HIT) and St. Petersburg State University (SPBU). The bilateral seminar will be held by School of Physics of HIT on November 16, 2022 via both online and offline. The renowned experts and teachers from China and Russia are invited to give keynote presentations on the hot topics and future direction of teaching reform of physics courses between China and Russia, and together discuss the frontier science and key issues of course teaching in the physics from different angles.

### **1. Basic information**

- Hosts:** Harbin Institute of Technology (HIT)  
St. Petersburg State University (SPBU)
- Organizer:** School of Physics of HIT
- Date:** November 16<sup>th</sup>, 2022
- Venue:** Online (Zoom: 872 7708 6016 Password: 1116)  
Offline (Conference Room 717 , Harbin Institute of Technology)  
(School of Physics, St. Petersburg State University)

## **2. Topics of the Seminar**

The purpose of the conference is to discuss and exchange ideas on improving the attraction of physics major to talents, improving the scientific research and innovation ability of top physics students, promoting the reform of physics experiment teaching model and course teaching, expanding new ideas of online teaching, strengthening the quality of postgraduate teaching and innovation training, and exchange and discuss other physics teaching related issues.

## **3. Committee**

### **General Chairs**

**Yi Shen**

Vice President of HIT

**Valeria Malomuzh**

Deputy Vice-Rector for International Affairs of SPBU

### **Executive Committee**

**Yaqin Zhao**

Executive Vice Director of Undergraduate College, HIT

**Dong Gao**

Executive Vice Director of Graduate College, HIT

**Jiang Xiong**

Executive Deputy Director of International Cooperation Department, and Director of the Foreign Affairs Division, HIT

**Hao Tian**

Dean of School of Physics, HIT

**Alexey Titov**

Vice Dean, Faculty of Physics, SPBU

**Nikolay Tsvetkov**

Vice Dean for Research, Corresponding member of the Academy of Sciences of Russia,  
Faculty of Physics, SPBU

**Vladimir Chirkov**

Vice Dean for Teaching Methods, Faculty of Physics, SPBU

**Yu Zhang**

Vice Dean, School of Physics, HIT

**Lei Huo**

School of Physics, HIT, Ministry of Education, university physics teaching committee  
member

**Aleksandr Shchekin**

Head of Department of Statistical Physics, Corresponding member of the Academy of  
Sciences of Russia, Faculty of Physics, SPBU

**Nikolay Timofeev**

Head of Department of Optics, Faculty of Physics, SPBU

**Vladimir Mikushev**

Member of the Federal Educational and Methodological Association in Physics, Faculty  
of Physics, SPBU

**Jun Li**

Vice Head of Education Department of Graduate College, HIT

**Weiqiang Ding**

Assistant Dean, School of Physics, HIT

**Chengxun Yuan**

Head of Department of Applied Physics, School of Physics, HIT

#### **4. Organizing Committee**

**Li Li**

International Exchange and Cooperation Office, School of Physics, HIT

**Marina Shelyapina**

Department of nuclear physics research methods, Faculty of Physics, SPBU.

**Elena Aksenova**

Department of statistical physics, Faculty of Physics, SPBU.

**Peng Tan**

Department of Optoelectronic Information Science and Engineering, School of Physics, HIT

**Vasiliy Buslov**

Department of computational physics, Faculty of Physics, SPBU.

**Junqing Li**

International Exchange and Cooperation Office, School of Physics, HIT

**Ying Wang**

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## 5. November 16, 2022 The 2nd Sino-Russian Physics Teaching Seminar

No.	Schedule (St. Petersburg Time)	Schedule (Harbin Time)	Content	Speaker
	10:00 – 10:30	15:00 – 15:30	Opening Ceremony	
			Speeches of University leaders from both sides	
			Speeches of two Deans from both sides	
1	10:30 – 10:50	15:30 – 15:50	Practices on Top-notch Innovative Postgraduate Cultivation in the Physics of HIT	Professor Weiqiang Ding of HIT
2	10:50 – 11:10	15:50 – 16:10	All-Russian and international physics olympiads of Saint Petersburg State University	Senior Lecturer Stepan Eliseev of SPBU
3	11:10 – 11:30	16:10 – 16:30	Online teaching of theoretical mechanics course	Professor Yanyu Ren of HIT
4	11:30 – 11:50	16:30–16:50	International Young Physicists' Tournament as way for attracting talented youth	Senior Lecturer Evgeny Vashukevich of SPBU
5	11:50-12:10	16:50 – 17:10	Explores and practices to multi-dimensionally improve the quality of graduate education in Harbin Institute of Technology	Professor Jun Li of HIT
	12:10 – 13:00	17:10 – 18:00	Break	
6	13:00 – 18:20	18:00 – 18:20	Physical experiments in education: from effectiveness to efficiency	Engineer-researcher Ilya Blashkov of SPBU
7	13:20 – 13:40	18:20 – 18:40	High-resolution gas absorption spectrometer: self-made instrument for physics experiment teaching	Professor Xiutao Lou of HIT
8	13:40 – 14:00	18:40 – 19:00	Science you can touch	Associate Professor Alexandra Lezova of SPBU
9	14:00 – 14:20	19:00 – 19:20	Playing music with physics students in the lab	Professor Junqing Li of HIT
10	14:20 – 14:40	19:20 – 19:40	Laboratory works and remote access: physical experiments in any parts of the globe	Specialist of the Scientific Park of SPbU Daniil Reshetnikov
	14:40-15:00	19:40-20:00	Closing Ceremony	