INTERNATIONAL SUMMER SCHOOL

PHYSICS AND FUTURE TECHNOLOGY CHANGES

Jul 2 – Jul 14, 2023

Harbin Institute of Technology, Harbin, P.R. China

GENERAL INFORMATION

The International Summer School of "Physics and Future Technology Changes" at Harbin Institute of Technology aims to provide undergraduate students majoring in physics and related fields at home and abroad with a platform to understand the latest development and applications of physics, to provide opportunities for students at home and abroad to exchange and learn, to create an atmosphere for professional English learning and improvement, and to promote students majoring in related fields to further understand the field and stimulate more youths' research interests.

ATTENDANCE REQUIREMENTS

Undergraduate or graduate attendees with background in general physics are welcomed. All participants must have a good command of English.

LECTURES AND TALKS

The summer school offers 4 lectures and 12 seminars. Lecturers and speakers are invited from top institutions in Russia, Singapore and China.

Lecturer/Speaker	Institution	Topic	Units (50mins/unit)
Prof. Vladimir Yu. Venediktov	Saint Petersburg National University of Electronic Technology	**L1**: Introduction to modern optics	10 (lecture)
Prof. A. S. Chirtsov	Saint Petersburg National University of Electronic Technology	**L2**: Demonstrations on the course of general physics and theoretical interpretation of the observed phenomena in Classical physics	10 (lecture)
Prof. O. S. Alekseeva	Saint Petersburg National University of Electronic Technology	**L3**: Introduction to relativistic and quantum physics	10 (lecture)

Prof. Shibo Xi	National University of Singapore	**L4**: Generation and application of synchrotron radiation	10 (lecture)
Prof. Chong Kim ONG	National University of Singapore	**T1**: High temperature superconducting technology	2 (talk)
Prof. Arkhipov Mikhail V.	ITMO University in Russia	**T2**: Introduction to optics of unipolar and subcycle light	2 (talk)
Prof. Ismail Rafatov	Middle East University of Science and Technology	**T3**: Frontiers in numerical simulation of plasma physics	2 (talk)
Prof. Evgeny Bogdanov	Saint Petersburg State University	**T4**: Plasma physics model	2 (talk)
Prof. Xiaogang Wang	Harbin Institute of Technology	**T5**: Overview of space plasma	2 (talk)
Prof. Yimu Chen	Harbin Institute of Technology (Shenzhen)	**T6**: Light field regulation in micro/nano structures	2 (talk)
Prof. Liangcai Cao	Tsinghua University	**T7**: Intelligent holographic photonics	2 (talk)
Prof. Anatoly kudryavtsev	Harbin Institute of Technology	**T8**: Progress in low-temperature plasma	2 (talk)
Prof. Kurban Rabadanov	Dagestan State University	**T9**: Introduction to plasma modeling and simulation	2 (talk)
Prof. Alexander Astafiev	Saint Petersburg National University of Electronic Technology	**T10**: Low temperature plasma generation technology	2 (talk)
Prof. Vladislav Igumnov	Tomsk Polytechnic University	**T11**: High energy microwave generation technology	2 (talk)
Prof. Hao Tian	Harbin Institute of Technology	**T12**: Optoelectronic functional materials and devices	2 (talk)

GROUP RESEARCH PROJECT

According to the International Young Physicists Tournament (IYPT), eight topics that are easy to operate, interesting, and rich in physical content have been selected as research topics. Students sign up voluntarily, with 3-4 people in each group, equipped with a guidance team of professors in the Schools of Physics.

PROGRAM DATES AND TIMES

	Week 1 (7.3-7.8)						**Week 2 (7.10-7.14)**				
	Mon	**Tue**	**Wed**	**Thur**	**Fri**	**Sat**	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**

M	L1	L1	L2	L2	L3	L3	L4	L4	T5	T8	T11
	L1	L1	L2	L2	L3	L3	L4	L4	T6	T9	T12
A	L1	T1	L2	T2	L3	T3	L4	T4	T7	T10	
	GR	GR	GR	GR	GR	GR	GR	GR	GR	GR	

(GR is the abbreviation for Group Research)

CONTACT INFORMATION

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