

2022 国际产学研用合作会议哈尔滨工程大学 极地科学与技术论坛 暨第二届极地装备与技术创新论坛

Forum on Polar Science and Technology of 2022 International Conference
on the Cooperation and Integration of Industry, Education, Research and
Application and Second Innovation Forum on Polar Equipment and
Technology of Harbin Engineering University

会议日程 Program



Host Organizations :

Harbin Engineering University

China-Russia Polar Technology and Equipment “One Belt- One Road” Joint Laboratory

International Cooperation in Ship and Ocean Engineering Technology Joint Laboratory

October 28th, 2022



Date and Time (GMT +08:00)		Schedule		Host	Address
28th,Oct. (Friday)	14:55	Opening Video		Fan Zhaobing Director of the International Exchange Office, Harbin Engineering University	Qihang, Teacher Salon, Harbin Engineering University; ZOOM ID:821 2203 9146
	15:00-15:10	Chinese Guest Speeches Yu Zhiwen, Vice President of Harbin Engineering University			
	15:10-15:20	Russian Guest Speeches Pinsky Alexander, Chairman of the Board of Supervisors, Marinet Industry Center, Russia			
	15:20-15:25	The host announces the beginning of the forum			
	Keynote Speeches				
	15:25-15:50	Knotty issues of modern arctic double-acting ships design	Alexander V. Andryushin Professor of Central Marine Research & Design Institute, Head of the laboratory “Propulsion complexes of ships”		Ni Baoyu, Vice Dean of College of Shipbuilding Engineering, Harbin Engineering University
	15:50-16:15	Research on the method of receiving low - frequency and ultra -low - frequency signals using the reservoir's ice cover	Senkevich Yuri Igorevich, Chief researcher of the Institute of Cosmophysics and Radio Wave Propagation, Far Eastern Branch of the Russian Academy of Sciences		
	16:15-16:40	Perovskite optoelectronic devices improved by nanophotonics	Sergey Makarov, Professor of ITMO University		
	16:40-17:05	Developing the			

		economy of the northern territories by integrating production, education, innovations, and their implementation to promote the northward openness and development of Heilongjiang Province	Gao Tianming, Professor of Harbin Engineering University		
	17:05-17:30	A new chapter of opening-up for cooperation and development -- Promoting the upgrading strategy of the Pilot Free Trade Zone and building a new plateau of opening-up to the North	Zhang Jianguo, Deputy Director of Harbin Area Administration of China (Heilongjiang) Pilot Free Trade Zone		
	17:30-18:00	Break			
	18:00-21:30	Invited Experts Speeches Sub-forum 1: Polar Ship; Zoom ID: 821 2203 9146	Invited Experts Speeches Sub-forum 2: Polar Communication and Navigation; Zoom ID: 831 3010 9289	Invited Experts Speeches Sub-forum 3: Polar Power Equipment and Adaptability; Zoom ID: 859 9502 7243	Invited Experts Speeches Sub-forum 4: Polar Physics; Zoom ID: 857 8692 4808

Sub-forum 1:
Polar Ship
28th, Oct., Zoom ID: 821 2203 9146

Beijing Time	Invited Experts Speeches	Reporters	Host
18:00-18:20	Energetical methodology for determining the calculated parameters of cyclic ice load on offshore structures	Tsuprik Vladimir Grigoryevich, Professor of Far Eastern Federal University	Lu Yang, Associate Professor, Harbin Engineering University
18:20-18:40	Durability of marine concrete in cold region	Kim LEV, Associate Professor of Far Eastern Federal University	
18:40-19:00	Induction heating system for technological objects with temperature-dependent fluids	Khlyupin Pavel Aleksandrovich, Professor of Ufa State Petroleum Technological University	
19:00-19:20	Methodological basis for the calculation of ice loads acting on the icebreaker hull based on a new model of ice dynamic fracture	Tryaskin Vladizir Nikolaevich, Professor of St. Petersburg State University of Marine Technology; Platonov Viktor Viktorovich Professor of Krylov State Research Center	
19:20-19:50	Break		
19:50-20:10	Recovery method of local ice load in hull structure strain measurement	Timofeev O. Ya Professor of St. Petersburg State University of Marine Technology	Wang Chunhui, Associate Professor, Harbin Engineering University
20:10-20:30	Study on freezing law and parameter optimization of hot rod foundation pit in severe cold area	Li Liang Professor of Harbin Institute of Technology	
20:30-20:50	Hydrogeology of reclaimed floodplain in a permafrost area, Yakutsk, Russia (Video)	Pavlova Nadezhda Anatolyevna, Professor of Northeast Federal University	
20:50-21:10	Exploring and Reflecting on Water Resources Issues in Northeast China and the Russian Far East (Video)	Dai Changlei Dean/Professor of Heilongjiang University	

Sub-forum 2:
Polar Communication and Navigation
28th, Oct., Zoom ID: 831 3010 9289

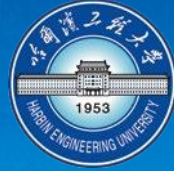
Beijing Time	Invited Experts Speeches	Reporters	Host
18:00-18:20	Modeling of a hydroacoustic communication system in a shallow sea in Arctic conditions	Vladimir Korochentsev Professor of Far Eastern Federal University /Member of the Russian Academy of Natural Sciences	Liu Ruizhi, Associate Professor, Harbin Engineering University
18:20-18:40	Ice belt and path are the conditions for building ecological civilization	Vladimir N. Bocharnikov Professor / Principal Investigator of Pacific Geography of the Far Eastern Branch of the Russian Academy of Sciences	
18:40-19:00	Problems of import substitution in the Arctic regions, major investment projects under sanctions, new regional specializations in the Arctic energy transition (hydrogen) (report based on the results of the group's work to the North Group of the Expert Council under the Government of the Russian Federation).	Alexander Kotov, Associate Professor/Senior Researcher, Institute of European Studies/Russian Academy of Sciences	
19:00-19:20	Meteor communication network for the Northern Sea Route	Sergey Makarov, Professor of Peter the Great St. Petersburg Polytechnic University / Academician of the Russian Academy of Engineering	
19:20-19:50	Break		
19:50-20:10	Development of oil and gas fields on the Arctic continental shelf	Svetlana Razmanova, Principal Investigator/Professor, Department of Geology and Oilfield Development, Gazprom VNIIGAZ Branch, Ukhta	Zhang Yuxiang, Professor, Harbin Engineering University
20:10-20:30	Nonlinear analysis of electromagnetic compatibility (EMC) of arctic communication and navigation systems	Vladimir Mordachev Leading Researcher, Scientific supervisor of EMC R&D Laboratory; Eugene Sinkevich Senior Researcher, Head of EMC R&D Laboratory, Belarusian state university of informatics and radioelectronics, Minsk, Belarus	
20:30-20:50	Autonomous navigation	Vladimir Yakunchikov , Professor of Russian Transport University	

Sub-forum 3:
Polar Power Equipment and Adaptability
28th, Oct. , Zoom ID: 859 9502 7243

Beijing Time	Invited Experts Speeches	Reporters	Host
18:00-18:20	Application of aluminum alloys in the production of machine-building parts	Nodir Turakhodjaev, Professor of Tashkent State Technical University	Tong Yunxiang, Professor, Harbin Engineering University
18:20-18:40	Prospects of mathematical modeling in the development of promising alloys for foundry production (general engineering)	K. Karimov, Professor of Tashkent State Technical University	
18:40-19:00	Self-assembly of nanostructures at plasma-electrolyte coatings formation	Boris Krit, Professor of Moscow Aviation Institute	
19:00-19:20	Functional matrix coatings on aluminum based on spatially ordered nanostructures	Gorokh Gennady, Head of Research Laboratory of Nanotechnologies, Belarus State Technical University	
19:20-19:50	Break		
19:50-20:10	Neutron diffraction studies of functional alloys and materials	R.N. Vasin, Senior scientist of Institute for Nuclear Research in Dubna, Russia	Guan Ben, Associate Professor, Harbin Engineering University
20:10-20:30	Microstructure and mechanical properties of ultrafine-grained gradient Mg-Gd-Zr alloy	Chen Xianhua, Professor of Chongqing University	
20:30-20:50	Design and Application of Ship Propulsion System Matching Platform with Diesel Engines	Ding Yu, Professor of Harbin Engineering University	
20:50-21:10	Structure and properties of Al-Co-Cr-Fe-Ni and Co-Cr-Fe-Mn-Ni high-entropy alloys, fabricated by wire-arc additive manufacturing technology (Video)	Sergey Konovalov, Academician/Professor of Samara National Research University	

**Sub-forum 4:
Polar Physics
28th, Oct. , Zoom ID: 857 8692 4808**

Beijing Time	Invited Experts Speeches	Reporters	Host
18:00-18:20	Halide-Perovskite Light-Emitting Photodetector	Marunchenko Alexander, Ph.D., ITMO University	Song Mingzhao, Associate Professor, Harbin Engineering University
18:20-18:40	Resonant periodic Light-Emitting structures based on thin films of CdSe-based core/shell nanoplatelets	Ruslan Azizov, Ph.D., ITMO University	
18:40-19:00	Hybrid Metal-Dielectric Nanophotonics	Zuev Dmitry, Associate Professor, ITMO University	
19:00-19:20	Recent progress on topological photonics	Dmitry Zhirihin, Lecturer, ITMO University	
19:20-19:50	Break		
19:50-20:10	Perovskite solar cells	Alexandra Furasov, Lecturer, ITMO University	Makarov Sergey, Professor, Harbin Engineering University
20:10-20:30	Single halide perovskite nanowire laser for HCl gas detection	Pushkarev Anatoly, Associate Professor, ITMO University	
20:30-20:50	Semitransparent light-emitting electrochemical cells with acid functionalized multi-wall carbon nanotubes as a top electrode	Bodyago Elena, Ph.D., ITMO University	
20:50-21:10	Halide Perovskite Nanocrystals with Enhanced Water Stability	Lev Zelenkov, Lecturer, ITMO University	
21:10-21:30	Lasers application for material synthesis	Lev Logunov, Lecturer, ITMO University	



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