Plenary Talk Schedule （On morning from May 14th to 17th）

Date	Time	Name	Nationality	Affiliation	Topic	Title	Chair
May 14th	08:20-09:20	**Opening Ceremony & Award Ceremony**					
	09:20-10:00	Thomas Tschentscher	Germany	European XFEL	Accelerators and radiation physics	**P01_**Using European XFEL for studying HED systems	Dieter Hoffmann
	10:00-10:40	**Coffee Break & Group photo**					
	10:40-11:20	Meng Wang (王勐)	China	Institute of Fluid Physics, CAEP	Pulsed power technology and application	**P02_**Recent Progress of Pulsed Power Technology and its Application in IFP	Zhengmao Sheng (盛正卯)
	11:20-12:00	Michel Koenig	France	LULI, Ecole Polytechnique	The fundamental physics at extremes	**P03_**Magnetized radiative shocks: their role in global evolution of interstellar medium	
May 15th	08:20-09:00	Yongkun Ding (丁永坤)	China	Institute of Applied Physics and Computational Mathematics	The fundamental physics at extremes	**P04_**Performance advantages of implosions driven by X-Ray from depleted uranium Hohlraum coating with uranium nitride over gold	Stefan Andreas Weber
	09:00-09:40	Y.C. Francis Thio	USA	Shanghai Tech University	Inertial confinement fusion and innovation fusion	**P05_**Magneto-Inertial Fusion and Magnetized High Energy Density Laboratory Plasma	
	09:40-10:00	**Coffee Break**					
	10:00-10:40	Sergei F. Garanin	Russia	Russian Federal Nuclear Center - VNIIEF	Pulsed power technology and application	**P06_**Plasma formation on the surface of condensed matter under the effect of powerful X-ray pulse	Jiande Zhang (张建德)
	10:40-11:20	Zhengmao Sheng (盛正卯)	China	Zhejiang University	Inertial confinement fusion and innovation fusion	**P07_**Quantum Effects and Instabilities on Beam-Target Fusion Reaction	
	11:20-12:00	Wei Lu (鲁巍)	China	Tsinghua University	Accelerators and radiation physics	**P08_**Plasma based Wakefield Accelerator and its Application	

May 16th	08:20-09:00	Zhentang Zhao (赵振堂)	China	Shanghai Advanced Research Institute, CAS	Accelerators and radiation physics	**P09_**Status of Shanghai X-ray Free Electron Laser Facilities	Thomas Tschentscher
	09:00-09:40	Bjorn Mysen	USA	Carnegie Institution for Science	High pressure physics and material	**P10_**High Temperature/Pressure aqueous Fluids in the Earth and terrestrial Planets	
	09:40-10:00	**Coffee Break**					
	10:00-10:40	Ronald Redmer	Germany	University of Rostock	The fundamental physics at extremes	**P11_**Probing Matter Under Planetary Interior Conditions	Meng Wang （王勐）
	10:40-11:20	Jiande Zhang (张建德)	China	National University of Defense Technology	Pulsed power technology and application	**P12_**The Research Progress of High Power Microwave in Transit Time Oscillator and Photonic Microwave Source	
	11:20-12:00	Zongqing Zhao （赵宗清）	China	Laser Fusion Research Center, CAEP	Inertial confinement fusion and innovation fusion	**P13_**Data Driven Raman Spectroscopy for Application in Biomedical Diagnosis	
May 17th	08:20-09:00	Donald Bruce Dingwell	Germany	Beihang University/University of Munich	High pressure physics and material	**P14_**The glass transition: a high pressure goal	Bjorn Mysen
	09:00-09:40	Jinguang Cheng (程金光)	China	Institute of Physics, CAS	High pressure physics and material	**P15_**Quantum materials under high pressure	
	09:40-10:20	Bingbing Liu （刘冰冰）	China	Jilin University	High pressure physics and material	**P16_**New Materials Constructed by Amorphous Building Blocks under Ultrahigh Pressure	
	10:20-10:40	**Coffee Break**					
	10:40-12:00	**Closing Ceremony & Best Poster Award**					

Invited and Oral Talk Schedule（On afternoon from May 14th to 16th ）

Topic 1: The fundamental physics at extremes

Oral Session OS1 (May 14th, Tuesday, 13:30-15:40, Hall: No.3)

I-1 Laboratory astrophysics

Chair: Michel Koenig

13:30-13:50 **Invited talk OS1-1:** The Opacity Project : New Opacities for Astrophysic
Franck Delahaye
Observatoire de Paris, France

13:50-14:10 **Invited talk OS1-2:** Dynamics and Energy Dissipation of Collisional Blast Waves in a Perpendicular Magnetic Field
Angelos Triantafyllidis
Sorbonne Université, France

14:10-14:30 **Invited talk OS1-3:** Shocks and energetic particles in collisional plasmas
Andrea Ciardi
Sorbonne University and Paris Observatory, France

14:30-14:45 **Oral OS1-4:** Laboratory Evidence of Confinement and Acceleration of Wide-Angle Flows by Toroidal Magnetic Fields
Lei Zhu
Institute of Applied Physics and Computational Mathematics, China

14:45-15:00 **Oral OS1-5:** Three-Dimensional Particle-In-Cell Simulations of Electron-Only Magnetic Reconnection Between Laser-Produced Plasma Bubbles
Hongtao Huang
National University of Defense Technology, China

15:00-15:15 **Oral OS1-6:** Numerical study of the suppression of magnetic reconnection onset with injected plasma
Jiacheng Yu
Beijing Normal University, China

15:15-15:40 **Coffee Break**

Oral Session OS6 (May 14th, Tuesday, 15:40-17:40, Hall: No.3)

I-2: Interaction between x-ray and matter

Chair: Franck Delahaye

15:40-16:00 **Invited talk OS6-1:** Probing ultra-fast ionization and shock dynamics in relativistic laser-wire interactions via resonant X-ray emission spectroscopy and X-ray phase contrast imaging at European-XFEL
Lingen Huang(黄林根）
Helmholtz-Zentrum Dresden-Rossendorf, Germany

16:00-16:20 **Invited talk OS6-2:** Coherency revisited: Collective effects in nonlinear Thomson scattering
Stefan Andreas Weber
Extreme Light Infrastructure-Beamlines, Academy of Sciences of the Czech Republic, Czechia

16:20-16:35 **Oral OS6-3:** Nuclear Excitation Induced by X-ray Free Electron Lasers
Jintao Qi(祁金涛)

Graduate School of China Academy of Engineering Physics, China

16:35-16:50 **Oral OS6-4:** Characterizing solid density plasmas relevant to white dwarf envelope using XRTS at EuXFEL
Chongbing Qu
University of Rostock, Germany

16:50-17:05 **Oral OS6-5:** Benchmark simulations of radiative transfer in participating binary stochastic mixtures in two dimensions
Cong-Zhang Gao(高聪章)
Institute of Applied Physics and Computational Mathematics, China

17:05-17:20 **Oral OS6-6:** Complex spatiotemporally resolved analysis of time- and space-integrated x-ray spectroscopy in dense plasmas driven by ultrashort relativistic laser pulses
Xiayun Pan（潘夏云）
Helmholtz-Zentrum Dresden-Rossendorf, Germany

17:20-17:35 **Oral OS6-7:**Resistive field generation in intense proton beam interaction with solid targets
Weiquan Wang
National University of Defense Technology, China

Oral Session OS11 (May 15th, Wednesday, 13:30-15:40, Hall: No.3)

I-3: laser-matter/plasma interaction-1

Chair: Stefan Andreas Weber

13:30-13:50 **Invited talk OS11-1:** Betatron radiation from laser interaction with structured plasmas
Alexander Pukhov
University of Dusseldorf, Germany

13:50-14:10 **Invited talk OS11-2:** Growth rate of an avalache of laser produced pairs
Caterina Riconda
LULI, Paris, France

14:10-14:30 **Invited talk OS11-3:** Commissioring of the 10 PW experimental areas of ELI-NP and results on laser-driven particle acceleration
Domenico Doria
ELI-NP, Bukarest, Romania

14:30-14:45 **Oral OS11-4:** Highly polarized gamma photons from electron-laser collisions
Suo Tang(唐琐)
Ocean University of China, China

14:45-15:00 **Oral OS11-5:** Electromagnetically Induced Transparency Effect in Relativistic Laser-plasma Interacting Process
Tiehuai Zhang
Beijing National Laboratory of Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, China

15:00-15:15 **Oral OS11-6:** Quantum Splitting of Electron Peaks in Ultra-Strong Fields
Bo Zhang
Laser Fusion Research Center, China Academy of Engineering Physics, China

15:15-15:30 **Oral OS11-7:** Experimental observation of relativistic dense electron sheets from a double layer target
Jianhui Bin
Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, China

15:30-15:40 **Coffee Break**

Oral Session OS22 (May 16th, Thursday, 15:40-17:40, Hall: No.1)

I-4: laser-matter/plasma interaction-2

Chair: Alexander Pukhov

15:40-16:00 **Invited talk OS22-1:** Strong laser driven high-energy particle beams with large angular momenta
Jianxing Li（栗建兴）
Xi'an Jiaotong University, China

16:00-16:20 **Invited talk OS22-2:** Relativistic moving curved mirror
Tae Moon Jeong
ELI-BL, Czechia

16:20-16:40 **Invited talk OS22-3:** Generation of subcycle isolated attosecond pulses by pumping ionizing gating
Zhaohui Wu（吴朝辉）
Laser Fusion Research Center, China Academy of Engineering Physics, China

16:40-16:55 **Oral OS22-4:** Polarization control of attosecond pulses from laser-nanofoil interactions using an external magnetic field
Rishat Zagidullin
Skolkovo Institute of Science and Technology,Russia

16:55-17:10 **Oral OS22-5:** A composite ansatz for the calculation of dynamical structure factor
Chongjie Mo(莫崇杰)
Beijing Computing Science Research Center, China

17:10-17:25 **Oral OS22-6:** The study of laser plasma interaction on low-coherence Kunwu Laser Facility
Peipei Wang（王佩佩）
Shanghai Institute of Laser Plasma, China

17:25-17:40 **Oral OS22-7:** Ultra-short lifetime isomer studies from photonuclear reactions using laser-driven ultra-intense γ-ray
Di Wu
Peking University, China

Oral Session OS16 (May 16th, Thursday, 13:30-15:40, Hall: No.3)

I-5:Plasma Physics and Instability

Chair: Baifei Shen(沈百飞)

13:30-14:00 **Keynote Talk OS16-1:** Far from charge equilibrium: nano-targets under relativistic intensities
Wenjun Ma(马文君)
Peking University, China

14:00-14:20 **Young Scientist Award invited OS16-2:** Laboratory investigation of particle energization in laser-driven magnetized shocks and associated instabilities
Weipeng Yao

CNRS & LULI, France

14:20-14:35 **Oral OS16-3:** The hydrodynamic instability on a two-dimensional water-air interface triggered by an impact
Yu Liang
New York University Abu Dhabi, the United Arab Emirates

14:35-14:50 **Oral OS16-4:** Interface instability and turbulent mixing induced by a Mach reflection wave configuration
Enlai Zhang
China Academy of Engineering Physics, China

14:50-15:05 **Oral OS16-5:** Non-ideal effects on ionization potential depression and ionization balance of dense Au plasmas
Yihua Huang(黄一骅)
Zhejiang University of Industry, China

15:05-15:20 **Oral OS16-6:** Nonlinear scaling of photon radiation power in relativistic plasma current filamentation instability with beam parameters
Zhanghu Hu(胡章虎)
Dalian University of Technology, China

15:20-15:40 **Coffee Break**

Oral Session OS21 (May 16th, Thursday, 15:40-17:40, Hall: No.3)

I-6: Other fundamental physics

Chair: Jianxing Li(栗建兴)

15:40-16:00 **Invited talk OS21-1:** Generation of Isolated Attosecond Electron Sheet via Relativistic Spatiotemporal Optical Manipulation
Wenpeng Wang（王文鹏）
Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, China

16:00-16:20 **Invited talk OS21-2:** Electron in counter propagating laser beams: dynamics and applications
Qingzheng Lv(吕清正)
Graduate School of China Academy of Engineering Physics, China

16:20-16:40 **Invited talk OS21-3:** On the thermodynamics of plasticity during quasi-isentropic compression of metallic glass
Kaiguo Chen(陈开果)
National University of Defense Technology, China

16:40-16:55 **Oral OS21-4:** Ionization potential depression model with the influence of nearby ions for warm/hot and dense plasma
Chensheng Wu(武晨晟)
Kunming University of Science and Technology, China

16:55-17:10 **Oral OS21-5:** About the exact solution for the magnetic diffusion problem with a step-function resistivity model
Bo Xiao
Institute of Fluid Physics, China Academy of Engineering Physics, China

17:10-17:25 **Oral OS21-6:** Electron-proton relaxation in hot-dense plasmas with a screened quantum statistical potential
Zhengfeng Fan（范征锋）
Institute of Applied Physics and Computational Mathematics, China

17:25-17:40 **Oral OS21-7:** Prediction Model of stoichiometric H_2-CH_4-O_2 DDT Distance in a pipe with Obstacles

Chuanyu Pan(潘传鱼)
Institute of Fluid Physics, China Academy of Engineering Physics, China

Topic 2: Accelerators and radiation physics

Oral Session OS2 (May 14th, Tuesday, 13:30-15:40, Hall: No.1)

II-1 Advanced accelerators-1

Chair:Liu Yang(杨柳)

13:30-13:50 **Invited talk OS2-1:** New regimes of charged particle dynamics in relativistic beam- and laser-driven plasmas
Zheng GONG（弓正）
Stanford University, USA

13:50-14:10 **Invited talk OS2-2:** Design and commissioning result of the SASE beamline at the Shanghai soft X-ray FEL facility
Zhi Guo（郭智）
Shanghai Advanced Research Institute, Chinese Academy of Sciences, China

14:10-14:30 **Invited talk OS2-3:** Advanced operation modes at European X-ray Free Electron Laser with high repetition rate
Weilun Qin
Deutsches Elektronen-Synchrotron DESY, Germany

14:30-14:45 **Oral OS2-4:** Gentle wavebreaking as a cause of transformer ratio growth in plasma wakefield accelerators
Vladimir Minakov
Novosibirsk State University, Russia

14:45-15:00 **Oral OS2-5:** Extension of the quasistatic approximation to account for the longitudinal interaction of plasma layers
Petr Tuev
Budker Institute of Nuclear Physics; Novosibirsk State University, Russia

15:00-15:15 **Oral OS2-6:** Design of high current proton beam accelerator tube
Yan Xue
nstitute of Fluid Physics, China Academy of Engineering Physics, China

15:15-15:30 **Oral OS2-7:** Effect of short inter-plasma vacuum gap on multi-bunch driver in plasma wakefield accelerator
Vlada Yarygova
Novosibirsk State University, Budker Institute of Nuclear Physics, Russia

15:30-15:40 **Coffee Break**

Oral Session OS7 (May 14th, Tuesday, 15:40-17:40, Hall: No.1)

II-2: Advanced accelerators-2

Chair: Tsu-Chien Weng（翁祖谦）

15:40-16:00 **Young Scientist Award Talk OS7-1:** Acceleration of over-100 MeV protons from a tailored nanometer foil irradiated by a multi-petawatt femtosecond laser
Shou Yinren（寿寅任）
Gwangju Institute of Science and Technology, Korea

16:00-16:20 **Invited talk OS7-2:** Collisionless shock acceleration of spin-polarized 3He
Lars Reichwein
Heinrich-Heine-Universität Düsseldorf, Germany

16:20-16:40 **Invited talk OS7-3:** On the interaction between intense lasers / high-current electron beams and complex materials
Ke Jiang（蒋轲）
Shenzhen Technology University, China

16:40-17:00 **Invited talk OS7-4:** Towards low emittance, bunch-by-bunch diagnostics for the nanosecond spaced electron beams of XFEL light sources
Liu Yang(杨柳)
Institute of Fluid Physics, China Academy of Engineering Physics, China

17:00-17:15 **Oral OS7-5:** Clustering of macroparticles in simulations of plasma wakefield acceleration and solutions to this problem
Konstantin Lotov
Novosibirsk State University, Budker INP, Russia

17:15-17:30 **Oral OS7-6:** LCODE 3D: An Open-Source Python Tool for 3D PWFA simulations
Nikita Okhotnikov
Novosibirsk State University, Budker INP, Russia

17:30-17:45 **Oral OS7-7:** Development of LWFA Towards a Robust Table-top XUV-FEL
Jin Zhan
Osaka Univeristy, Japan

17:45-18:00 **Oral OS7-8:** Monte Carlo simulation study on secondary electron emission characteristics of metal materials modified by ion beam irradiation
Wei Zhao(赵伟)
Institute of Fluid Physics, China Academy of Engineering Physics, China

Oral Session OS12 (May 15th, Wednesday, 13:30-15:40, Hall: No.1)

II-3: Intense radiation source and radiation effect

Chair: Thomas Cowan

13:30-13:50 **Invited Talk OS12-1:** SXFEL and SHINE Endstations
Tsu-Chien Weng（翁祖谦）
School of Physical Science and Technology, ShanghaiTech University, China

13:50-14:10 **Invited talk OS12-2:** CEPC possible application as a photon source and the progress of superconducting undulator at IHEP
Yuhui Li(李煜辉)
Institute of High Energy Physics, Chinese Academy of Sciences, China

14:10-14:30 **Invited talk OS12-3:** The status of Dalian coherent light source and future plan
Weiqing Zhang(张未卿)
Dalian Institute of Chemical Engineering, Chinese Academy of Sciences, China

14:30-14:50 **Invited talk OS12-4:** Generation of highly spin-polarized energetic electrons via intense laser-irradiated tailored targets
Xiaofei Shen
Peking University, China

14:50-15:05 **Oral OS12-6:** Modeling and experiments on the direct laser acceleration of electrons and generation of gamma beams in a wide range of laser-plasma interaction parameters
Iskander Umarov
Joint Institute for High Temperatures of the Russian Academy of Sciences; Moscow Institute of Physics and Technology, Russia

15:05-15:20 **Oral OS12-7:** Generation of bright gamma-rays and dense positrons via

beam-solid interactions
Xinglong Zhu(朱兴龙)
ZheJiang University, China

15:20-15:40 **Coffee Break**

Oral Session OS17 (May 16th, Thursday, 13:30-15:40, Hall: No.1)

II-4:Radiation source and Radiation imaging

Chair: Xiaofei Shen

13:30-13:50 **Invited Talk OS17-1:** High energy density science at the European XFEL
Thomas Cowan
Institute of Radiation Physics, Helmholtz-Zentrum Dresden-Rossendorf, Germany

13:50-14:10 **Invited Talk OS17-2:** Relativistic Optics for Extreme Light Generation
Marcel LAMAC
ELI-BL, Czechia

14:10-14:30 **Invited Talk OS17-2:** Secondary Sources Optimized by Extreme Intensity Lasers at the Interaction with Micro-Cones
Olimpia Budriga
National Institute for Laser, Plasma and Radiation Physics, Romania

14:30-14:45 **Oral OS17-2:** Nonlinear Compton Scattering for next generation photon facilities
Sergey Rykovanov
Skolkovo Institute of Science and Technology, Russia

14:45-15:00 **Oral OS17-3:** Large-size flexible X-ray imaging and information encryption storage based on radio-photoluminescence
Qianli Li
Shanghai University, China

15:00-15:15 **Oral OS17-4:** Capture of isotropic hot positrons by an intense vortex laser
Lixiang Hu
Department of Physics, National University of Defense Technology, China

15:15-15:30 **Oral OS17-5:** New coherent light source and brilliant gamma-rays driven by a high-current relativistic electron beam
Taiwu Huang（黄太武）
Shenzhen Technology University, China

15:30-15:40 **Coffee Break**

Topic 3: Pulsed power technology and application

Oral Session OS3 **(May 14th, Tuesday, 13:30-15:40, Hall: No.7)**

III-1 Pulsed power system and key components

Chair: Jianqiang Yuan(袁建强)

13:30-14:00 **Keynote talk OS3-1:** New Generation of Disk EMG (Small-Class Disk EMG)
Andrei Ivanovskii
Russian Federal Nuclear Center – VNIIEF, Russia

14:00-14:20 **Invited talk OS3-2:** Research on solid-state pulse modulator based on light triggered multi gate semiconductor switch
Hongwei Liu(刘宏伟)
Institute of Fluid Physics, China Academy of Engineering Physics, China

14:20-14:35 **Oral OS3-3:** Experimental study on the insulator ring surface electric withstanding characteristics in vacuum under pulsed voltage
Feng Li（李逢）
Institute of Fluid Physics, China Academy of Engineering Physics, China

14:35-14:50 **Oral OS3-4:** Comprehensive Analysis on Degradations of Electrical Parameters for SiC Gate turn-off thyristor Under Repetitive Pulse Current Stress
Peng Dong（董鹏）
Microsystem and Terahertz Research Center, Institute of Electronic Engineering, China Academy of Engineering Physics, China

14:50-15:05 **Oral OS3-5:** Analysis of the physical mechanism triggering the breakdown of electrodynamic structures
Nongchao Tan（谭弄潮）
National University of Defense Technology, China

15:05-15:20 **Oral OS3-6:** Three kinds of Intense Electron-beam Accelerators based on Pulse Forming line at NUDT
Xinbing Cheng(程新兵)
Frontier Interdisciplinary College of National University of Defense Technology, China

15:20-15:40 **Coffee Break**

Oral Session OS8 **(May 14th, Tuesday, 15:40-17:40, Hall: No.7)**

III-2 Pulsed power Applications-1

Chair:S. F. Garanin

15:40-16:00 **Invited talk OS8-1:** Experimental and Simulated Research on High velocity formed jet and Projectile by Electromagnetic Loading on High Pulsed Power Generator
Guiji Wang（王桂吉）
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:00-16:20 **Invited talk OS8-2:** Experimental investigation of Rayleigh-Taylor instability on

FP-1 facility
Zhengwei Zhang (章征伟)
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:20-16:35 **Oral OS8-3:** Introduction and application of multi-method and multi-medium Magnetohydrodynamics simulation platform MMM
Ganghua Wang(王刚华)
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:35-16:50 **Oral OS8-4:** Techniques for high pressure quasi-isentropic compression of LiH and Deuterium using magnetocumulative generator
Xuping Zhang (张旭平)
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:50-17:05 **Oral OS8-5:** Study of Shock Compression of Materials Using Small-Class Disk Explosive Magnetic Generators
Evgenii Shapovalov
Russian Federal Nuclear Center - VNIIEF, Russia

17:05-17:20 **Oral OS8-6:** The progress of magnetically driven fluid dynamics experiments based on FP-2 facility
Huiting Sheng（沈慧婷）
Institute of Fluid Physics, China Academy of Engineering Physics, China

Oral Session OS13 (May 15th, Wednesday, 13:30-16:30, Hall: No.7)

III-3 Symposium on High Power Microwave

Chair:Jun Zhang(张军)

13:30-13:50 **Invited talk OS13-1:** Introduction of recent research progress on relativistic magnetro at IAE
Dong Wang(王冬)
Key Laboratory on advanced laser and high power microwave institute of applied electronics, China

13:50-14:10 **Invited talk OS13-2:** Research progress on key technologies of high power microwave source based on SiC PCSS
Chongbiao Luan(栾崇彪)
Institute of Fluid Physics, China Academy of Engineering Physics, China

14:10-14:30 **Invited talk OS13-3:** The Ultra-Fast Solid-state Avalanche Phase source
Jingliang Liu(刘京亮)
The 13th institute of China electronics Technology Group corporation，China

14:30-14:50 **Invited talk OS13-4:** Mode Fission Antenna with high power capacity, low profile and high Aperture Efficiency
Guolin Li(李国林)
The 10th research institute of China Aerospace Science and Industry Corporation, China

14:50-15:10 **Invited talk OS13-5:** Research RF breakdown in high power microwave device operating with strong guiding field
Ping Wu(吴平)
Northwest Institute of Nuclear Technology, China

15:10-15:30 **Invited talk OS13-6:**An L-band 10000W High-power limiter based on silicon-based PIN diodes
Shijun Tang(唐世军)
Nanjing Electronics Devices Institute, China

15:30-15:50 **Invited talk OS13-7:**The development of microwave vacuum electronics devices

in AIRCAS
Zhiqiang Zhang(张志强)
Aerospace Information Research Institute, Chinese Academy of Sciences, China

15:50-16:10 **Invited talk OS13-8:**UESTC research progress in relativistic magnetron cathode
Tianming Li(李天明)
University of Electron Science and Technology of China, China

16:10-16:30 **Invited talk OS13-9:**High-power techniques in Microstrip phased Array Antennas
Shaoqiu Xiao(肖绍球)
Key Laboratory on Advanced Laser and High Power Microwave Institute of Applied Electronics, China

16:30-16:50 **Invited talk OS13-10:**Demonstration of Millimeter wave gyrotrons for future fusion.
Jinjun Feng(冯进军)
Beijing Vacuum Electronics Research Institute, Beijing, China

Oral Session OS18 (May 16th, Thursday, 13:30-15:40, Hall: No.7)

III-4 Solid pulsed power/ Terahertz technologies

Chair: Liguo Zhu(朱礼国)

13:30-13:50 **Invited Talk OS18-1:** Generation and applications of intense laser-driven Terahertz pulses
Yutong Li（李玉同）
Institute of Physics, Chinese Academy of Sciences, China

13:50-14:10 **Invited Talk OS18-2:** Solid-State Modulator Development and its Industrial Application
Hong-Je Ryoo
Chung-Ang University, Korea

14:10-14:30 **Invited Talk OS18-3:** Terahertz radiation based on plasma oscillations of two-dimensional electron gas plasma in heterogeneous structures
Yubin Gong（宫玉斌）
University of Electron Science and Technology of China, China

14:30-14:50 **Oral OS18-4:** Recent Research Results of Compact Repetitive High Power Pulse Generators
Youcheng Wu(伍友成)
Institute of Fluid Physics, China Academy of Engineering Physics, China

14:50-15:05 **Oral OS18-5:** A Prior research for a 40 kV Compact Solid-state Pulsed Power Modulator based on a Battery
Seung Jae Jeong
Chung-Ang University, Korea

15:05-15:20 **Oral OS18-6:** 52 kV, 120 A High-Voltage Solid-State Pulsed-Power Modulator for driving S-Band Magnetron
Joo-Young Lee
Chung-Ang University, Korea

15:20-15:40 **Coffee Break**

Oral Session OS23 (May 16th, Thursday, 15:40-17:40, Hall: No.7)

III-5 Pulsed power Applications -2

Chair: Yutong Li(李玉同)

15:40-16:00 **Invited Talk OS23-1:** The opacity research on 10MA Z-pinch facility
Qiang Xu（徐强）
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:00-16:15 **Oral OS23-2:** Investigation of Aluminum K-line Radiation in Experiments with Explosive Magnetic Generators
Boris Repin
Russian Federal Nuclear Center – VNIIEF, Russia

16:15-16:30 **Oral OS23-3:** Development of intense large-area X-ray bremsstrahlung sources on the 10-MA pulsed power facility
Xiaodong Ren（任晓东）
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:30-16:45 **Oral OS23-4:** Recent Progress of Imaging Shock-Related Phenomina in Meso-Scale Using an X-Pinch X-Ray Source
Jing Li(李晶)
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:45-17:00 **Oral OS23-5:** Pulse and Continuous Neutron Sources with Gas-Plasma Target
Mikhailov Yury
Dukhov All-Russian Research Institute of Automatics, Russia

17:00-17:15 **Oral OS23-6:** Optical and X-ray laser technologies
Nail Inogamov
Center for fundamental and applied research of the Dukhov Automatics Research Institute (VNIIA), Russia

17:15-17:30 **Oral OS23-7:** Explosive pulsed power to drive vacuum tube
Alexandra Gurinovich
Institute for Nuclear Problems, Russia

Topic 4: Inertial confinement fusion and innovation fusion

Oral Session OS4 **(May 14th, Tuesday, 13:30-15:40, Hall: No.5)**

IV-1 Magneto-inertial, Z-pinch, and other fusion approach

Chair: Yuqiu Gu（谷渝秋）

13:30-13:50 **Invited talk OS4-1:** Generation of megatesla magnetic fields by microtube implosions and its application to fusion
M. Murakami
Institute of Laser Engineering, Japan

13:50-14:10 **Invited talk OS4-2:** Laser and intense ion beam interaction with dense plasmas
Jieru Ren(任洁茹)
Xi'an Jiaotong University, China

14:10-15:25 **Oral OS4-3:** The effects of Embedded Hard Foam Layer and Capsule on the Implosion Behavior and Radiation Field of Z-pinch Dynamic Hohlraum
Cheng Ning(宁成)
Institute of Applied Physics and Computational Mathematics, China

15:25-14:40 **Oral OS4-4:** Study of axial non-uniformity in Al wires ablation plasma
Wei Wang（王威）
Xi'an Jiaotong University, China

14:40-14:55 **Oral OS4-5:** Typical physical processes of low-density FRC for HFRC
Yuesong Jia(贾月松)
Institute of Fluid Physics, China Academy of Engineering Physics, China

14:55-15:10 **Oral OS4-6:** Doping assisted neutron production in Fast Ignition
Bofang Jiang(姜博放)
Shanghai Jiao Tong University, China

15:10-15:25 **Oral OS4-7:** Interactions of laser with highly magnetized over-dense plasma in a whistler mode
Kun Li(李昆)
Shantou University, China

15:25-15:40 **Coffee Break**

Oral Session OS9 **(May 14th, Tuesday, 15:40-17:40, Hall: No.5)**

IV -2: Laser and particle beam fusion Physics-1

Chair: Jieru Ren(任洁茹)

15:40-16:00 **Invited talk OS9-1:** Experimental investigation of back SRS, side SRS, TPD and hot electron generation at Shock Ignition laser intensities
Gabriele Cristoforetti
National Research Council of Italy, Italy

16:00-16:20 **Invited talk OS9-2:** Indirect Drive Implosion Experiments Using Novel Hohlraums with Multi Laser-entrance-holes
Yunsong Dong（董云松）
Laser Fusion Research Center, China Academy of Engineering Physics, China

16:20-16:40 **Invited talk OS9-3:** High-throughput x-ray imaging using a laser-plasma accelerator
Amina Hussein
University of Alberta, Edmonton, Canada

16:40-17:00 **Invited talk OS9-4:** Research on the Concept of Laser Drivers for Fusion Energy
Ping Li(李平)
Laser Fusion Research Center, China Academy of Engineering Physics, China

17:00-17:15 **Oral OS9-5:** Experimental study on the influence of the joint feature in double-shell target on the shape of inner shell during implosion
Chao Tian(田超)
Laser Fusion Research Center, China Academy of Engineering Physics, China

17:15-17:30 **Oral OS9-6:** Heavy ions beam driven HEDP research at HIAF
Rui Cheng(程锐)
Institute of Modern Physics, Chinese Academy of Sciences, China

17:30-17:45 **Oral OS9-7:** Self-Organized Criticality and Ignition Scaling Laws of Inertial Confinement Fusion
Min Lv（吕敏）
Laser Fusion Research Center, China Academy of Engineering Physics, China

Oral Session OS14 (May 15th, Wednesday, 13:30-15:40, Hall: No.5)

IV -3: Laser and particle beam fusion Physics-2

Chair: Zhengming Sheng (盛政明）

13:30-13:50 **Invited talk OS14-1:** Hole-Boring in Fast Ignition with Ultra-Intense Circularly Polarized Laser
Kunioki Mima
Institute of Laser Engineering, Osaka University, Japan

13:50-14:10 **Invited talk OS14-2:** The quest for proton boron fusion
Dieter H. H. Hoffmann
Xi'an Jiaotong University, China

14:10-14:30 **Invited talk OS14-3:** The Primary Research of inner source Inertial Electrostatic Confinement Fusion
Jinhai Li
East China University of Technology, China

14:25-14:40 **Oral OS14-4:** Experimental study on the implosion symmetry of double shell capsule on the 100kJ facility
Hang Li（黎航）
Laser Fusion Research Center, China Academy of Engineering Physics, China

14:40-14:55 **Oral OS14-5:** Mitigate the Rayleigh-Taylor instability by tuning the electron heating flux in the DCI scheme
Fuyuan Wu（吴福源）
Shanghai Jiao Tong University, China

14:55-15:10 **Oral OS14-6:** Mitigation of Large-Aperture Fused Silica Optics Operated above Laser Damage Growth Thresholds for High Power Laser Facilities
Chuanchao Zhang(张传超)
Laser Fusion Research Center, China Academy of Engineering Physics, China

15:10-15:25 **Oral OS14-7:**Control of parametric instabilities in laser fusion with low-coherence lasers
Suming Weng（翁苏明）
Shanghai Jiao Tong University, China

15:25-15:40 **Coffee Break**

Oral Session OS19 (May 16th, Thursday, 13:30-15:40, Hall: No.5)

IV -4: Related numerical simulation on ICF

Chair: Dieter H. H. Hoffmann

13:30-13:50 **Invited Talk OS19-1:** Theoretical and numerical studies on stimulated Raman scattering in inhomogeneous plasmas and their mitigation with broadband lasers
Zhengming Sheng (盛政明）
Shanghai Jiao Tong University, China

13:50-14:10 **Invited Talk OS19-2:** Analytical modelling of the spray amplification of a spatially smoothed laser beam
Vladimir Tikhonchuk
Extreme Light Infrastructure ERIC; University of Bordeaux, France

14:10-14:25 **Oral OS19-3:** PIC simulations of the competition between backward and forward stimulated Raman sidescatter in Ignition-Scale Direct-Drive coronal conditions
Qing Wang
Institute of Applied Physics and Computational Mathematics, China

14:25-14:40 **Oral OS19-4:** Modeling crossed-beam energy transfer and results in the condition of double cone ignition
Xiaobao Jia（贾晓宝）
University of Science and Technology of China, China

14:40-14:55 **Oral OS19-5:** Kinetic simulation of Stimulated Raman Scattering driven by a stochastic phase low-coherence laser
Yan Yin(银燕)
National University of Defense Technology, China

14:55-15:10 **Oral OS19-6:** Broadband laser-driven back-stimulated Raman scattering burst and its suppression
Qingkang Liu(刘庆康)
Institute of Applied Physics and Computational Mathematics, China

15:10-15:25 **Oral OS19-7:** Two-Plasmon-Decay Instability Stimulated by a Normal- and Large-Angle-Incidence Laser Pair
Changwang Lian(练昌旺)
University of Science and Technology of China, China

15:25-15:40 **Coffee Break**

Oral Session OS24 (May 16th, Wednesday, 15:40-17:40, Hall: No.5)

IV-5: Diagnostics for Fusion

Chair: M. Murakami

15:40-16:00 **Invited talk OS24-1:** High spatio-temporal resolution diagnostic system for two-dimensional velocity field of shock wave
Feng Wang(王峰)
Laser Fusion Research Center, China Academy of Engineering Physics, China

16:00-16:20 **Invited talk OS24-2:** Development of the hot spot diagnostics through the high spatial-temporal resolved and the energy resolved X-ray microscopy
Xing Zhang（张兴）
Laser Fusion Research Center, China Academy of Engineering Physics, China

16:20-16:35 **Oral OS24-3:** Diagnosing the SBS-driven ion acoustic wave in a gas-filled hohlraum via Thomson scattering
Tao Gong(龚韬)
Laser Fusion Research Center, China Academy of Engineering Physics, China

16:35-16:50 **Oral OS24-4:**Polarized Neutron Beams from Spin-polarized Deuterium-Tritium Target Implosions

Ronghao Hu
Sichuan University, China

16:50-17:05 **Oral OS24-5:** Study on hohlraum plasma motion and mixing based on Thomson scattering
Hang Zhao(赵航)
Laser Fusion Research Center, China Academy of Engineering Physics, China

17:05-17:20 **Oral OS24-6:**Study on four-phase interferometric velocimetry diagnostic technique
Zanyang Guan
China Academy of Engineering Physics, China

17:20-17:35 **Oral OS24-7:** Measure and analysis the hotspot mix with the modified Ross Filter Pairs Imaging diagnostics
Bolun Chen（陈伯伦）
Laser Fusion Research Center, China Academy of Engineering Physics, China

Topic 5: High pressure physics and material

Oral Session OS5 (May 14th, Tuesday, 13:30-15:40, Hall: No.8)

V-1 Condensed-matter physics under compression-1

Chair: Yang Ding(丁阳)

13:30-13:50 **Invited talk OS5-1:** Electrical resistivity of Se and Te under high pressure of hydrogen
Jaeyong Kim
Hanyang University, Korea

13:50-14:10 **Invited talk OS5-2:** Ternary Hydride Superconductors Under High Pressure
Xiaoli Huang
Jilin University, China

14:10-14:30 **Invited talk OS5-3:** Superconductivity in high entropy compounds
Fang Hong (洪芳)
Institute of Physics, Chinese Academy of Sciences, China

14:30-14:45 **Oral OS5-4:** Electrical transport properties of $Ti_{53}Zr_{27}Ni_{20}$ quasicrystals under high pressure
Bin Li
Hanyang University, korea

14:45-15:00 **Oral OS5-5:** Prediction of high-temperature superconducting hydrides from high to ambient pressures
Yue-Wen Fang
University of the Basque Country, Spain

15:00-15:15 **Oral OS5-6:** Phase stability of the superconducting compound La3Ni2O7 at different pressures and temperatures
Hengzhong Zhang
Center for High Pressure Science & Technology Advanced Research, China

15:15-15:30 **Oral OS5-7:**A new molecular hydride superconductor BiH_4 with Tc up to 91 K at 170 Gpa
Liang Ma
School of Physics, Zhengzhou University, China

15:30-15:40 **Coffee Break**

Oral Session OS10 (May 14th, Tuesday, 15:40-17:40, Hall: No.8)

V -2: Condensed-matter physics under compression-2

Chair: Thomas Meier

15:40-16:00 **Invited talk OS10-1:** Structure determination of the elusive high pressure ζ phase of molecular nitrogen
Dominique Laniel
University of Edinburgh, United Kingdom

16:00-16:20 **Invited talk OS10-2:** Electrides: Unexplored territory for new physical phenomena in condensed matter?
Hua-Yun Geng（耿华运）
Institute of Fluid Physics, China Academy of Engineering Physics, China

16:20-16:40 **Invited talk OS10-3:** Rapid Compression of Nitrogen in Diamond Anvil Cell
Eugene Gregoryanz

University of Edinburgh, United Kingdom

16:40-16:55 **Oral OS10-4:**Experimental exploration of high pressure solid phase of tin
Hao Liu(刘浩)
Laser Fusion Research Center, China Academy of Engineering Physics, China

16:55-17:10 **Oral OS10-5:**Structural phase transition in BiVO4 nanosheets under high pressure
Benyuan Cheng(程本源)
Shanghai Institute of Laser Plasma, China Academy of Engineering Physics, China

17:10-17:25 **Oral OS10-6:**Prediction of fully metallic σ-bonded boron framework induced high superconductivity above 100 K in thermodynamically stable Sr2B5 at 40 Gpa
Xin Yang
Center for High Pressure Science & Technology Advanced Research, China

17:25-17:40 **Oral OS10-7:** Unusual pressure-induced local structural crossover in binary Zr65Ni35 metallic glass
Dazhe Xu(徐大哲)
Center for High Pressure Science & Technology Advanced Research, China

17:40-17:55 **Oral OS10-8:** Polyamorphism in a solute-lean Al-Ce metallic glass under high pressure
Ziliang Yin(尹梓梁)
Center for High Pressure Science & Technology Advanced Research, China

Oral Session OS15 (May 15th, Wednesday, 13:30-15:40, Hall: No.8)

V-3: High pressure geoscience and chemistry

Chair: Qingyang Hu(胡清扬)

13:30-13:50 **Invited talk OS15-1:** Phase Diagram of Methane Revisited
Miriam Pena-Alvarez
University of Edinburgh, United Kingdom

13:50-14:10 **Invited talk OS15-2:** Machine learning based materials simulations and its applications in interdisciplinary studies
Jian Sun(孙建)
Nanjing University, China

14:10-14:30 **Young Scientist Award talk OS15-3:** Formation of novel dense phases in oxygen and nitrogen binary mixtures
Wan Xu（许婉）
Chinese Academy of Sciences, Hefei, China

14:30-14:45 **Oral OS15-4:**Iron Redox Reaction in Earth's Early Magma Ocean
Jie Li
University of Michigan, USA

14:45-15:00 **Oral OS15-5:** Carbon nanotubes under shock compression
Alexander Soldatov
Yanshan University, China

15:00-15:15 **Oral OS15-6:** Hydrocarbons under high pressure: enhancing intermolecular interactions
Takeshi Nakagawa
Center for High Pressure Science & Technology Advanced Research, China

15:15-15:30 **Oral OS15-7:** High pressure-high temperature induced molecular

dissociation-recombination in the dense selenium-hydrogen system
Huixin Hu(胡蕙昕)
Center for High Pressure Science & Technology Advanced Research, China

15:30-15:40 **Coffee Break**

Oral Session OS20 (May 16th, Thursday, 13:30-15:40, Hall: No.8)

V-4: High pressure technology and dynamic compression

Chair: Wenjun Zhu(祝文军)

13:30-13:50 **Invited talk OS20-1:** High-Pressure Platform for Swift Heavy Ion Irradiations: Probing Structural Transformations in Extreme Environments
Ioannis Tsifas
Heavy Ion Accelerator in Darmstadt, Germany

13:50-14:10 **Invited talk OS20-2:** Laser dynamic compression platform at the SACLA X-ray free-electron laser facility
Kohei Miyanishi
RIKEN SPring-8 Center, Japan

14:10-14:30 **Invited talk OS20-3:**Melting at extreme conditions by laser shock compression
Liang Sun（孙亮）
Laser Fusion Research Center, China Academy of Engineering Physics, China

14:30-14:45 **Oral OS20-4:** High Power Nanosecond Laser for Dynamic Shock Compression and roadmap to kJ level at high repetition rate
Olivier Zabiolle
Amplitude LASER GROUP, France

14:45-15:00 **Oral OS20-5:** Dynamic convergent shock compression initiated by return current in high-intensity laser solid interactions
Long Yang
Helmholtz-Zentrum Dresden-Rossendorf, Germany

15:00-15:15 **Oral OS20-6:**Laser-driven equation of state of copper powder to 1350 GPa
Guo Jia(贾果)
Shanghai Institute of Laser Plasma, China Academy of Engineering Physics

15:15-15:30 **Oral OS20-7:** Extreme Conditions NMR: from in-situ high-pressure NMR to trace-element detection in nano-sized samples
Thomas Meier
Center for High Pressure Science & Technology Advanced Research, China

15:30-15:40 **Coffee Break**

Oral Session OS25 (May 16th, Thursday, 15:40-17:40, Hall: No.8)

V-5: Material science under compression

Chair: Huiyang Gou(缑慧阳)

15:40-16:00 **Invited talk OS25-1:** Atomic and superatomic superconductors under pressure
Tianping Yin
Institute of Physics, Chinese Academy of Sciences, China

16:00-16:20 **Invited talk OS25-2:** In situ high-pressure wide-angle XPCS: A versatile tool probing atomic dynamics of extreme condition matter
Qiaoshi Zeng（曾桥石）
Center for High Pressure Science & Technology Advanced Research, China

16:20-16:40 **Invited talk OS25-3:**Design and synthesis of ternary hydrogen-based superconductors
Guoying Gao（高国英）

Yanshan University, China

16:40-16:55 **Oral OS25-4:**Visualizing pore collapse in explosive by X-ray picosecond tracking imaging

Zhurong Cao (曹柱荣)

Laser Fusion Research Center, China Academy of Engineering Physics, China

16:55-17:10 **Oral OS25-5:** Mechanical properties of high-entropy materials under high pressure

Binbin Yue（岳彬彬）

Center for High Pressure Science & Technology Advanced Research, China

17:10-17:25 **Oral OS25-6:**Development of explosive implosion magnetic flux generator and its application analysis on metallization of hydrogen

Zhuowei Gu（谷卓伟）

Institute of Fluid Physics, China Academy of Engineering Physics, China

17:25-17:40 **Oral OS25-7:**Preservation of high-pressure materials in nanostructured diamond capsules

Zhidan Zeng（曾徵丹）

Center for High Pressure Science & Technology Advanced Research, China

17:40-17:55 **Oral OS25-8:** Study on dynamic evolution behavior of helium bubbles in metals under strong Shock

Shengning Yan(阎圣宁)

Institute of Applied Physics and Computational Mathematics, China

17:55-18:10 **Oral OS25-9:** Superior optical transparency of nano-grain magnesium aluminate spinel at high shock pressure

Xiuxia Cao(操秀霞)

Institute of Fluid Physics, China Academy Of Engineering Physics, China