

Wendy	Mao	1	Emerging experimental techniques	Nanoscale x-ray imaging in a diamond anvil cell	Monday, July 30	8:30 AM
Dayne	Fratanduono	1	Emerging experimental techniques	Phase transformation kinetics and the liquid structure factor of shock compressed Sn	Monday, July 30	9:00 AM
Thomas	Meier	1	Emerging experimental techniques	On the way to NMR at Megabar Pressures: Observation of Nuclear Quantum Effects and Hydrogen Bond Symmetrization in High Pressure Ices	Monday, July 30	9:30 AM
Martin	Meven	1	Emerging experimental techniques	New High Pressure Cells for Single Crystal Diffraction with Hot Neutrons at the Heinz Maier-Leibnitz Zentrum (MLZ)	Monday, July 30	10:00 AM
Camelia	Stan	1	Emerging experimental techniques	Tandem X-ray microdiffraction and microfluorescence for highpressure materials characterization	Monday, July 30	11:00 AM
Viktor	Struzhkin	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Synthesis of new hydrides at high pressures	Monday, July 30	11:30 AM
Oliver	Tschauner	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Ice-VII and other natural mineral inclusions of former dense fluid components in diamonds from the deep mantle	Monday, July 30	12:00 PM
Stanislav	Sinogeikin	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Advanced synchrotron techniques for high-pressure high/low temperature research at HPCAT, Advanced Photon Source	Monday, July 30	12:30 PM
Nicolas	Holtgrewe	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Advanced high-resolution integrated optical system for diamond anvil cell studies	Monday, July 30	2:30 PM
Gaston	Garbarino	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Extreme conditions studies at ID27 ESRF beamline: present and future status	Monday, July 30	3:00 PM
Yoshinori	Tange	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Time-resolved XFEL observation of shock-wave propagating material	Monday, July 30	4:00 PM
Ross	Howie	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Synthesis and characterization of novel hydrides at high pressure and temperature	Monday, July 30	4:30 PM

Christopher	Tulk	2	Advanced synchrotron and optical characterization of materials at extreme conditions	An Update on Recent Developments and Research in High Pressure Neutron Scattering	Monday, July 30	5:00 PM
Bin	Chen	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Elasticity of single crystal ice VII up to 30 GPa	Monday, July 30	5:30 PM
Przemyslaw	Dera	2	Advanced synchrotron and optical characterization of materials at extreme conditions	Hypervalent penta-coordinated silicon and metastable phase transitions in chain silicates	Monday, July 30	6:00 PM
Takeshi	Sakai	3	New frontiers in extreme conditions crystallography	Technical development of double-stage diamond anvil cell and equations of state at multi-megabar condition	Tuesday, July 31	8:00 AM
Christopher	Wehrenberg	3	New frontiers in extreme conditions crystallography	Measuring twinning and slip during shock-compression of Ta from in-situ x-ray diffraction	Tuesday, July 31	8:30 AM
Stewart	McWilliams	3	New frontiers in extreme conditions crystallography	New advances in free electron laser x-ray diffraction under pressure: from complex structures to dynamic diamond cells	Tuesday, July 31	9:00 AM
Earl	O'Bannon	3	New frontiers in extreme conditions crystallography	Powder diffraction of simple metals at pressures greater than 5.0 Mbars	Tuesday, July 31	9:30 AM
Christine	Beavers	4	High pressure chemistry and synthesis	Coordination Chemistry & Porous Materials at High Pressure: What the Mineral Physicists Don't Experience	Tuesday, July 31	10:00 AM
David	Allan	4	High pressure chemistry and synthesis	High-pressure structural chemistry studies on beamline I19 at Diamond Light Source	Tuesday, July 31	11:00 AM
Weizhao	Cai	4	High pressure chemistry and synthesis	High pressure behavior of hydrocarbons: case studies on benzene and benz[a]anthracene	Tuesday, July 31	11:30 AM
James	Walsh	4	High pressure chemistry and synthesis	High-Pressure Synthesis of Novel Binary Intermetallics	Tuesday, July 31	12:00 PM
Sebastian	Vogel	4	High pressure chemistry and synthesis	Phosphorus on the Brink of Six-fold Coordination in Nitride Compounds	Tuesday, July 31	12:30 PM
Jon	Eggert		Keynote 1		Tuesday, July 31	2:30 PM
Siddhartha	Pathak	5	Materials science	Structure and Properties of Pseudomorphically Transformed bcc Mg Synthesized Using Interface Strain Engineering	Tuesday, July 31	4:00 PM

Sheng-Yi	Xie	5	Materials science	Correlated High-Pressure Phase Sequence of Metal-dioxides under Strong Compression	Tuesday, July 31	4:30 PM
Qiaoshi	Zeng	5	Materials science	Two-way tuning of order in ϵ disordered metallic glass	Tuesday, July 31	5:00 PM
Zhidan	Zeng	5	Materials science	Synthesis of quenchable amorphous diamond under high pressure and temperature	Tuesday, July 31	5:30 PM
Haozhe	Liu	5	Materials science		Tuesday, July 31	6:00 PM
Peter	Lazor	6	Materials metastability under pressure	Phase Transitions and Magnetovolume Anomaly in $\text{CoCrFeNi}_x\text{Al}_{1-x}$ ($x = 0, 0.5, 0.75$) High-Entropy Alloys	Wednesday, August 1	8:00 AM
Jodie	Bradby	6	Materials metastability under pressure	Using both nanoindentation and diamond anvil cells to understand phase transformations in Si, Ge and Glassy Carbon	Wednesday, August 1	8:30 AM
Sung-keun	Lee	6	Materials metastability under pressure	Nature of amorphous oxides under extreme compression via solid-state NMR and inelastic X-ray scattering	Wednesday, August 1	9:00 AM
Guoyin	Shen	6	Materials metastability under pressure	Metastable melting under decompression	Wednesday, August 1	9:30 AM
Hannah	Shelton	6	Materials metastability under pressure	The ideal crystal structure of cristobalite X-I: A bridge in SiO_2 densification	Wednesday, August 1	10:00 AM
Yongjae	Lee		Keynote 2	Super-hydration from zeolites to clay	Wednesday, August 1	11:00 AM
Ho-kwang (David)	Mao	7	High-pressure crystallography in earth and planetary science	Crystal structures of high-pressure solid phases of hydrogen to 230 GPa based on x-ray diffraction	Wednesday, August 1	12:00 PM
Yingwei	Fei	7	High-pressure crystallography in earth and planetary science	Planetary core compositions constrained from density measurements and chemical differentiation	Wednesday, August 1	12:30 PM
Jonathan	Tischler	7	High-pressure crystallography in earth and planetary science	Application of sub-micron x-ray beams to diffraction from small high pressure samples.	Wednesday, August 1	2:30 PM
Jin	Liu	7	High-pressure crystallography in earth and planetary science	Oxygenated iron oxide at Earth's lower mantle conditions	Wednesday, August 1	3:00 PM
Li	Zhang	7	High-pressure crystallography in earth and planetary science	Interaction of major volatiles with the lower mantle: a multigrain approach	Wednesday, August 1	4:00 PM
Ronald	Miletich	7	High-pressure crystallography in earth and planetary science	Crystalline polymeric carbon dioxide is stable at megabar conditions	Wednesday, August 1	4:30 PM

Shanti	Deemyad		Keynote 3		Thursday, August 2	8:00 AM
Gilberto	Fabbris	8	Electronic and magnetic materials at extreme conditions	Probing the electronic structure and magnetism of 5d materials using resonant x-ray techniques at high pressure	Thursday, August 2	9:00 AM
Mingliang	Tian	8	Electronic and magnetic materials at extreme conditions	Quantum transport property in trigonal layered PtBi ₂ : a possible new triply degenerate point fermions and pressure-induced superconductivity	Thursday, August 2	9:30 AM
Ricardo	Reis	8	Electronic and magnetic materials at extreme conditions	Pressure tuning the Fermi surface topology of Weyl semimetals	Thursday, August 2	10:00 AM
Audrey	Grockowiak	8	Electronic and magnetic materials at extreme conditions	High pressure, high magnetic field Fermiology studies of YBCO	Thursday, August 2	11:00 AM
Xiancheng	Wang	8	Electronic and magnetic materials at extreme conditions	A New Quasi One-Dimensional Compound Ba ₃ TiTe ₅ and Superconductivity Induced by Pressure	Thursday, August 2	11:30 AM
Xiangang	Wan	8	Electronic and magnetic materials at extreme conditions	Theoretical study of the magnetic anisotropy energy in bulk Na ₄ IrO ₄	Thursday, August 2	12:00 PM
Cheng-Chien	Chen	8	Electronic and magnetic materials at extreme conditions	Computational Modeling of Mechanical and Electronic Properties of Superhard Boron-Carbon Materials	Thursday, August 2	12:30 PM
Weiwei	Xie	8	Electronic and magnetic materials at extreme conditions	Dimorphic SrMn ₂ P ₂ under various pressures - Theory and experiment in harmony	Thursday, August 2	2:30 PM
Koichiro	Umemoto	9	Computational approaches in extreme conditions science	Post-post-perovskite transitions in MgSiO ₃ by first principles	Thursday, August 2	3:00 PM
Shuai	Zhang	9	Computational approaches in extreme conditions science	Equations of state of carbon- and boron-materials by path integral Monte Carlo and density functional theory simulations	Thursday, August 2	4:00 PM
Rajeev	Ahuja	9	Computational approaches in extreme conditions science	Structural prediction of host-guest structure in Lithium at high pressure	Thursday, August 2	4:30 PM
Zhongqing	Wu	9	Computational approaches in extreme conditions science	Exploring the Earth's interior with the elasticity of minerals at high pressure and temperature	Thursday, August 2	5:00 PM
John	Tse	9	Computational approaches in extreme conditions science	The Electronic Ground State of FeO ₂	Thursday, August 2	5:30 PM