

Workshop on Ultrafast X-ray Studies on Dynamic Irreversible Processes

Wednesday, 25 April 2018 – Friday, 27 April 2018

Institute of High Energy Physics (IHEP)

Scientific Programme

0425

1800, reception dinner, Restaurant at Guest House

04/26

Morning session, Chair, Peter lee

0830 Yuhui Dong (IHEP), opening talk

0840 Ye Tao (IHEP), HEPS status

0900 Weinong Chen (Purdue University), Application of High-Speed X-Ray Imaging In Real-Time Visualization of Impact Damage Evolution in Materials

0940 Andreas Schropp (DESY), Hard X-Ray Nano-Focusing and Phase-Contrast Imaging at XFELs

1020 meeting photo and coffee break

1040 B.P.Tolochko (Institute of Solid State Chemistry and Mechanochemistry SB RAS), Time-resolved X-ray diffraction experiment investigation of irreversible ultrafast processes in BINP SB RAS Novosibirsk: status and perspectives

1120 Sheng-Nian Luo (The Peac Institute of Multiscale Sciences), Probe structural dynamics at multiscales under dynamic loading

1150 Pengwan Chen (Beijing Institute of Technology), TBD

1220 Jianbo Hu (Institute of Fluid Physics, China Academy of Engineering Physics), Shock-induced phase transitions of solids observed via single-shot nanosecond time-resolved X-ray diffraction

1250 lunch

Afternoon session, Chair, Weinong Chen

1330 Tao Sun (APS, ANL), High-speed X-ray Imaging and Diffraction at the Advanced Photon Source

1410 Feng Lin (Tsinghua University), The electron beam powder bed additive manufacturing technique and its multi-scale modeling

1440 Peter Lee (University of Manchester), Capturing ultra-fast phenomena during materials processing

1520 coffee break

1540 Margie P. Olbinado (ESRF), Exploiting ~100 picoseconds coherent X-ray pulses in ultra high-speed imaging

1620 Takeharu Etoh (Ritsumeikan University), A Silicon Image Sensor Captured Flying Light - A Step toward the Ultimate-high-speed X-ray Image Sensor

1700 Guangzhao Zhou (Shanghai Synchrotron Radiation Facility, SSRF), Fast X-ray imaging beamline in phase-II project of SSRF

1730 Bingbing Zhang (IHEP), SDB design

1830 Banquet

04/27

Discussion and evaluation session, chair, Tao Sun

0830-1115 Discussion of the SDB design: Science case, beamline optics design and beam diagnostics, fast X-ray probes, detectors, dynamic loading and additive manufacturing devices

1115-1130 Coffee break

1130-1230 SDB evaluation report writing and workshop summary

1230 Lunch