

PROGRAM
the International school for young scientists
11th - 13th November 2009, Moscow

**“Advanced Research in Photon Sciences. Experimental Capabilities of
the European XFEL”**

**Russian Research Centre “Kurchatov Institute”
European XFEL
A.V. Shubnikov Institute of Crystallography RAS**

1st day (11th Nov): “Photon Sciences”

09:00 **Registration**

Chairman: O. Naraikin

10:00 - 10:30 Welcome and Opening Addresses

10:30 - 11:30 RRC “Kurchatov Institute” as a head scientific coordinator of the participation of RF in the European XFEL project (M. Kovalchuk, RRC KI Moscow)

11:30 - 12:30 Status of the European XFEL project (M. Altarelli, XFEL Hamburg)

12:30 - 13:30 Excursion to KCSR RRC KI for young scientists

13:30 - 14:30 Lunch

Chairman: M. Altarelli

14:30 - 15:15 Advanced SR facilities (G.N. Kulipanov, BINP Novosibirsk)

15:15 - 16:00 PETRA III facility (H. Franz, DESY Hamburg)

16:00 - 16:45 KCSR facility at RRC KI (V.V. Kvardakov, RRC KI Moscow)

16:45 - 17:15 Coffee break

Chairman: M. Kovalchuk

17:15 - 17:45 Protein structural analysis with SR (V.O. Popov, A.N. Bach Institute of Biochemistry RAS, Moscow)

17:45 - 18:15 X-ray imaging: A new window into the brain and cognition (K.V. Anokhin, Institute of Normal Physiology RAMS Moscow)

18:15 - 18:45 New experimental opportunities at KCSR (R. Senin, RRC KI Moscow)

18:45 - 19:15 Characterization of nano-bio-organic structures with X-ray fluorescence (N. Novikova, RRC KI Moscow)

19:30 - 22:30 Welcome party

2nd day (12th Nov): “Overview of the European XFEL”

Chairman: Th. Tschentscher

09:30 - 10:15 Basic principles of X-ray free electron lasers (M. Yurkov, DESY Hamburg)

10:15 - 11:00 Accelerator complex for XFEL (Ch. Gerth, DESY Hamburg)

11:00 - 11:15 Coffee break

Chairman: S. Molodtsov

11:15 - 12:00 XFEL undulators (A. Schwarz, XFEL Hamburg)

12:00 - 12:45 X-ray optics for XFEL (H. Sinn, XFEL Hamburg)

12:45 - 13:45 Lunch

Chairman: V. Nosik

13:45 - 14:30 New generation of detectors for XFEL (H. Graafsma, DESY Hamburg)

14:30 - 15:15 XFEL soft X-ray instruments (S. Molodtsov, XFEL Hamburg)

15:15 - 16:00 XFEL hard X-ray instruments (Th. Tschentscher, XFEL Hamburg)

16:00 - 16:15 Coffee break

Chairman: G. Kulipanov

16:15 - 17:00 FLASH facility (J. Feldhaus, DESY Hamburg)

17:00 - 17:45 FEL facilities in Novosibirsk (N. Vinokurov, BINP Novosibirsk)

3rd day (13th Nov): “Science at the European XFEL”

Chairman: P. Kashkarov

09:30 - 10:15 Spectroscopy and coherent scattering (SCS) (S. Molodtsov, XFEL Hamburg)

10:15 - 11:00 High energy density matter (HED) (Th. Tschentscher, XFEL Hamburg)

11:00 - 11:15 Coffee break

11:15 - 12:00 Femtosecond time-resolved X-ray experiments (FDE) (Ch. Bressler, XFEL Hamburg)

12:00 - 13:00 Lunch

Chairman: Ch. Bressler

13:00 - 13:45 Small quantum systems (SQS) (M. Meyer, Univ. Paris-Sud)

13:45 - 14:30 Material imaging & dynamics (MID) (I. Vartanians, DESY Hamburg)

14:30 - 14:45 Coffee break

Chairman: I. Vartanians

14:45 - 15:30 Complementarity of real-time neutron and X-ray structural investigation (V.L. Aksenov, Joint Institute for Nuclear Research, Dubna)

15:30 - 16:30 Round table discussions