

Synchrotron and Free electron laser Radiation: generation and application (SFR-2020)

Monday, 13 July 2020 - Friday, 17 July 2020

**Zoom
Programme**

Monday 13 July 2020

SR and FEL sources and centers: Plenary 1 - Zoom 860 5034 1820 (13 Jul 2020, 14:00-16:10)

-Conveners: Nicolay Vinokurov; Oleg Shevchenko

time	[id] title	presenter
14:00	[165] Welcome speech from SSRC Director (10 minutes)	KULIPANOV, Gennady (Director of SSTRC)
14:10	[79] Synchrotron radiation application in the BINP (30 minutes)	ZOLOTAREV, Konstantin (Budker Institute of Nuclear Physics)
14:40	[166] High Energy Photon Source (HEPS) and its current status (30 minutes)	Prof. TAO, Ye (HEPS)
15:10	[89] THz Gyrotrons: novelty, achievements and applications (30 minutes)	GLYAVIN, Mikhail (IAP RAS)
15:40	[167] Scientific opportunities at the first 4th generation high energy synchrotron radiation source (30 minutes)	REICHERT, Harald (European Synchrotron Radiation Facility)

Coffee break (16:10-16:30)

SR and FEL sources and centers: Plenary 2 - Zoom 860 5034 1820 (13 Jul 2020, 16:30-18:30)

-Conveners: Nicolay Vinokurov; Oleg Shevchenko

time	[id] title	presenter
16:30	[20] The Novosibirsk free electron laser facility (30 minutes)	Dr SHEVCHENKO, Oleg (BINP)
17:00	[12] Short-period undulators with electrostatic field (30 minutes)	Prof. VINOKUROV, NIKOLAY (Budker Institute of Nuclear Physics)
17:30	[22] Radiation stability and hyperfine mode structure of the terahertz NovoFEL (20 minutes)	Dr KUBAREV, Vitaly (BINP)
17:50	[24] Electron outcoupling experiments at the NovoFEL facility (20 minutes)	Dr GETMANOV, Yaroslav (Budker INP)
18:10	[70] Superconducting 3 Tesla 54-pole indirect cooling wigglers with a period of 48 mm for Kurchatov Synchrotron Radiation Source (20 minutes)	SHKARUBA, Vitaliy (BINP)

Technological solutions for SR centers/beamlines: Oral 1 - Zoom 860 5034 1820 (13 Jul 2020, 18:30-19:30)

-Conveners: Zolotarev, Konstantin (Budker Institute of Nuclear Physics)

time	[id] title	presenter
18:30	[164] Optically coupled X-Ray imaging system, from microscopy to macroscopy (20 minutes)	ROCHET, Xavier (Optique Peter)
18:50	[135] X-ray diffractometers and spectrometers Bruker AXS for materials research (20 minutes)	Mr SHEVCHUKOV, Alexandr (Melytec LLC)
19:10	[109] Customized Testing Systems for Beamlines (20 minutes)	DOLGIKH, Alexandr

Poster Session: SR and FEL sources and centers (13 Jul 2020, 20:00-20:26)		
[id] title	presenter	
[2] THE RESEARCH OF STRUCTURE AND MORPHOLOGY OF POWDER TYPE D-16 AND MATERIAL ON IT'S BASIS OBTAINED BY METHOD OF 3D PRINTING (1 minute)	Mr ESELEVICH, Danil (ISSC UB RAS)	
[3] AN EXAMPLE OF USING THE OPTICAL CHARACTERISTICS OF METALS OBTAINED BY THE METHODS OF SYNCHRO-TRON RADIATION AND ELLIPSOMETRY TO DETERMINE THE ELECTRONIC PROPERTIES OF ALUMINUM IN A SOLID STATE (1 minute)	Mr KISELEV, Anatoly (Federal State government-financed research institution Institute of Solid State Chemistry of the Ural Branch of the Russian Academy of Sciences)	
[10] Optical design of the «Structural Diagnostics» beamline for SRF «SKIF» (1 minute)	VINOKUROV, Zakhar (BIC SB RAS)	
[14] Simulation and Experimental Study of Beam Dynamics in NovoFEL RF Gun and its Beamline (1 minute)	Mr MATVEEV, Anton (BINP SB RAS)	
[17] Monitoring system of Novosibirsk FEL optical channel state using 1-Wire devices (1 minute)	Dr TARARYSHKIN, Sergey (Budker Institute of Nuclear Physics)	
[18] Usage of Epics Channel Access protocol in Novosibirsk FEL control system (1 minute)	SEREDNYAKOV, Stanislav (Budker Institute Of Nuclear Physics)	
[21] The variable period undulator magnetic field measurements and correction of the field errors (1 minute)	GORBACHEV, Yaroslav (Budker Institute of Nuclear Physics)	
[26] measurements and calculation of induced radioactivity from technological units of the Novosibirsk FEL accelerator-recuperator (1 minute)	Dr SALUIKOVA, Tatiana (Budker INP SB RAS)	
[28] estimates and measurements of photon and neutron radiation doses of the Novosibirsk FEL micron-recuperator (1 minute)	Dr SALIKOVA, Tatiana (Budker INP SB RAS)	
[29] The NovoFEL Optical Diagnostics Upgrade (1 minute)	RESHETOV, D. (Budker INF) MESHKOV, O.I. (Budker INP) DOROKHOV, V.L. (Budker INP) Mr BORIN, Vladislav (BINP)	
[43] Measuring Installation for Determining Current-Voltage Characteristics at Liquid Helium Temperature (1 minute)	Mr BRODNIKOV, Alexandr (inp.nsk.su (I.8-2))	
[44] A development of compact combined pump for SRF SKIF (1 minute)	Dr SEMENOV, Alexey (BINP SB RAS)	
[56] Beam-beam compensation in a collider based on energy recovery linac and storage ring (1 minute)	LACHYNOV, Shamil (Novosibirsk State University, Budker Institute of Nuclear Physics)	
[58] Magnetic measurements in small aperture of indirect cooling wiggler. (1 minute)	KHRUSHCHEV, Sergey (BINP)	
[74] A step-wise tapered undulator for the quick-EXAFS beamline at the Siberian Circular Photon Source (1 minute)	TREBUSHININ, Andrei (Novosibirsk State University)	
[75] Method for polarization shaping at free-electron lasers (1 minute)	Mr TREBUSHININ, Andrei (Novosibirsk State University)	
[77] Superconducting elliptical undulator (1 minute)	KANONIK, Pavel (Budker Institute of Nuclear Physics)	

[78] Superconducting undulator with a variable configuration of the magnetic field. (1 minute)	KANONIK, Pavel (Budker Institute of Nuclear Physics)
[80] Pulsed wire field measurements of 38-period superconducting undulator prototype (1 minute)	Mr KAZANTSEV, Fedor (Novosibirsk State University)
[97] Theory of multibunch storage ring with transverse feedback (1 minute)	Prof. VINOKUROV, NIKOLAY
[112] Electromagnetic Undulator with switchable period for soft X-ray application in the SKIF project (1 minute)	Mr UTKIN, Anatoly (Budker Institute of Nuclear Physics)
[117] Development of indirect cooling cryogenic system with nitrogen and helium heat pipes for superconducting insertion devices in BINP. (1 minute)	TSUKANOV, Valeriy (BINP)
[138] Conception of vacuum system for SRS «SKIF» (1 minute)	Dr KRASNOV, Alexander (Budker INP SB RAS)
[153] THE INFLUENCE OF INTERNAL BERYLLIUM MICROSTRUCTURE AND IMPURITIES ON THE CRL X-RAY OPTICAL PROPERTIES (1 minute)	LYATUN, Ivan (X-Ray Coherent Optics Laboratory (IKBFU))
[154] Inverse Compton scattering at collision of electron and photon beams with oblique fronts (1 minute)	Dr TISHCHENKO, A.A. (National Research Nuclear University MEPhI, Moscow, Russia, National Research Centre "Kurchatov Institute", Moscow, Russia, Laboratory of Radiation Physics, Belgorod National Research University, Belgorod, Russia)
[155] Generation of Smith-Purcell radiation from an array of sub-wavelength particles (1 minute)	Mrs SERGEEVA, D.Yu. (National Research Tomsk Polytechnic University, Tomsk, Russia)

Poster Session: SR for medicine and biology application (13 Jul 2020, 20:27-20:29)

[id] title presenter

[6] EFFECT OF TiO _y STOICHIOMETRY ON THE STRUCTURE OF TiO _y /HAP NANOCOMPOSITE (1 minute)	Mr ESELEVICH, Danil (Institute of Solid State Chemistry UB RAS)
[130] An attempt of the quantitative analysis of cyclical constituents in structure of scanning microfluorescence signals from human hairs (1 minute)	Mr SOROKOLETOV, Dmitry CHERNETSKAJA, Maria (Budker INP SB RAS)

Poster Session: SR technological application and X-ray apparatus (13 Jul 2020, 20:30-20:49)

[id] title presenter

[16] Project of the optical scheme for the soft X-ray & VUV beamline at SKIF synchrotron facility (1 minute)	Dr NIKOLENKO, Anton (Budker INP SB RAS)
[31] W-containing PMMA-based nanocomposite (1 minute)	Dr NAZMOV, Vladimir (Budker Institute of Nuclear Physics)

[33] Direct writing on PbWO4 monocrystalline using X-rays (1 minute)	Dr NAZMOV, Vladimir (Budker Institute of Nuclear Physics)	
[32] Self-aligned single exposure deep x-ray lithography (1 minute)	Mr NAZMOV, Vladimir (Budker Institute of Nuclear Physics)	
[51] COMPRESSION AND HIGH-PRESSURE TORSION TECHNIQUES FOR DIFFRACTOMETRY IN SYNCHROTRON RADIATION AND NGR-SPECTROSCOPY (1 minute)	PATSELOV, Alexander (M.N. Miheev Institute of Metal Physics of Ural Branch of Russian Academy of Sciences) Mr CHERNYSHEV, Eugeny (M.N. Mikheev Institute of Metal Physics, UB of the RAS, Ekaterinburg, Russia)	
[53] FT-IR investigation of netlike polymerization of SU-8 resist layers during photo- and X-ray lithography processes (1 minute)	Dr REZNIKOVA, Elena	
[66] First experiments on new synchrotron radiation technological station on the VEPP-4M (1 minute)	Dr GOLDENBERG, Boris (Budker INP)	
[69] Status of the development of the silicon microstrip detector for ultra-fast dynamic studies (1 minute)	SHEKHTMAN, Lev	
[96] Способ изготовления LIGA-шаблонов на основе танталовой фольги (1 minute)	ГЕНЦЕЛЕВ, александр	
[99] "In situ diffraction at extreme conditions" end-station at SKIF (1 minute)	Dr RASHCHENKO, Sergey (Sobolev Institute of Geology and Mineralogy, SB RAS)	
[132] A range of intuitive discretization schemes to accelerate algorithms for solving deconvolution problems without loss of accuracy (1 minute)	Mr SOROKOLETOV, Dmitry	
[134] The first results of measuring XAFS spectra in the soft X-ray range at KOSMOS station (1 minute)	NIKOLENKO, Anton (Budker INP SB RAS) SYROKVASHIN, Mikhail (NIIC SB RAS)	
[136] Diamond micro-CRL for coherent X-ray imaging and microscopy (1 minute)	Ms MEDVEDSKAYA , Polina (Immanuel Kant Baltic Federal University)	
[137] X-ray reflecto-interferometer based on compound refractive lenses for thin-films study (1 minute)	Ms VOEVODINA, Maria (Immanuel Kant Baltic Federal University)	
[149] Development of photon diagnostic methods for synchrotron radiation sources (1 minute)	KHEGAY, Artem (BFU)	
[151] Development of an approach to minimize the effects of x-ray glitches (1 minute)	KLIMOVA, Nataliya (Immanuel Kant Baltic Federal University, 236041 Kaliningrad, Russia)	
[156] Transmission Hard X-ray Interferometer-Microscope (15-35 keV) at VEPP-4 storage ring facility as a project (1 minute)	Dr REZNIKOVA, Elena	
[47] The project "Diagnostics in the high-energy X-ray range" beamline at the Siberian synchrotron SKIF (1 minute)	Dr KUPER, Konstantin (BINP)	
[157] mu-XRF for thick specimens (1 minute)	Dr NAZMOV, Vladimir	

Poster Session: THz radiation application (13 Jul 2020, 20:50-20:57)

[id] title	presenter	
[27] Technical and software improvements of the EPR spectroscopy station at the NovoFEL facility: status 2020. (1 minute)	Dr MELNIKOV, Anatoly (International Tomography Center)	
[40] Techniques for generation of annular surface plasmon polaritons with refractive binary and reflective cylindrical diffraction gratings (1 minute)	Prof. KNYAZEV, Boris (Novosibirsk State University)	
[54] Relaxation times of donor bound electrons in silicon and germanium (1 minute)	ZHUKAVIN, Roman (Institute for Physics of Microstructures)	
[55] Test results of the 7 T superconducting solenoid for THz laser spectroscopy (1 minute)	BRAGIN, Alexey (Budker Institute of Nuclear Physics)	
[65] Numerical simulation of the interaction of terahertz waves with diffraction metal gratings and conditions for the generation of surface plasmons (1 minute)	Mr KAMESHKOV, Oleg	
[94] Single-color pump-probe setup at the NovoFEL facility for measuring the temporal dynamics of relaxation in Ge:As (1 minute)	KUKOTENKO, Valeriia (Budker Institute of Nuclear Physics)	
[95] Цельнометаллические микроструктурные элементы управления терагерцовым излучением (1 minute)	КУЗНЕЦОВ, Сергей	

Poster Session: X-ray fluorescent analysis (13 Jul 2020, 20:58-21:10)

[id] title	presenter	
[42] Development of SRXFA method with the hard X-ray range for paleoclimate reconstruction (region of Lake Baikal) on the storage ring VEPP-4M (1 minute)	Mr LEGKODYMOV, Aleksandr (Budker Institute of Nuclear Physics)	
[30] SR-XRFA in Botanical Research: Elemental Composition of Species of the Genus Syringa (Oleaceae) under Technogenic Impact in Novosibirsk (1 minute)	Dr KHRAMOVA, Elena (Central Siberian Botanical Gardens, SB RAS)	
[62] Investigation of the chemical composition of bottom sediments Bering Sea (1 minute)	KIRICHENKO, Ivan (IGM SB RAS)	
[71] Analysis of the individual annual layers elemental composition in the Lake Kucherlinskoe (Altai) varves sediments with submicron spatial resolution by scanning micro_XRF-SR with x-ray optics (poly capillary lenses). (1 minute)	DARIN, Andrey (Sobolev Institute of Geology and Mineralogy SB RAS)	
[72] Comparison of the geochemical profiles of Lake Khindiktykol (Tuva) bottom sediments cores according to the scanning μ XRF-SR. (1 minute)	DARIN, Andrey (Sobolev Institute of Geology and Mineralogy SB RAS)	
[82] The study of the aerosol impurities seasonal accumulation in a snow cover by scanning μ XRF-SR. (1 minute)	DARIN, Andrey (Sobolev Institute of Geology and Mineralogy SB RAS)	
[103] SECONDARY MINERAL FORMATION MONDMILCH FROM BOTOVSKAYA CAVE (EASTERN SIBERIA) (1 minute)	Dr SHOLOKHOVA, Yulia (IGC SB RAS)	
[108] The nongaussian behaviour of the spread function of the x-ray polycapillary lens: characteristic cases and new nonstandard approximation models (1 minute)	Mr SOROKOLETOV, Dmitry	
[114] The code for processing of the SRXRF spectra (1 minute)	ZOLOTAREV, Konstantin (Budker Institute of Nuclear Physics)	

[133] Regularization approach for specific adverse events in processing elemental maps obtained using micro-XRF (1 minute)	Mr SOROKOLETOV, Dmitry	
[141] X-ray phase-sensitive imaging technique based on a bilens interferometer (1 minute)	ZVEREV, Dmitry (Immanuel Kant Baltic Federal University)	
[46] Microelemental limitation of lymph nodes structure according to the X-ray fluorescent analysis with a synchrotron radiation (1 minute)	Prof. GORCHAKOV, Vladimir (Novosibirsk University State)	

Poster Session: X-ray spectroscopy (13 Jul 2020, 21:11-21:24)

[id] title presenter

[48] Application of complex studies of test samples for the implementation of combined SR methods for the study of micro-objects (1 minute)	Dr KRIVENTSOV, Vladimir	
[90] Study of thiacaexarene conformation effect on the electronic structure by X-Ray Absorption Spectroscopy and quantum chemistry methods (1 minute)	LAVRUKHINA, Svetlana (Nikolaev Institute of Inorganic Chemistry)	
[105] Characteristic of d-f states in DyNi₂Mn and ErCo₂Mn compounds with strong electronic correlations by resonant photoemission (1 minute)	PONOMAREVA, Ekaterina (M.N. Miheev Institute of Metal Physics UB RAS)	
[123] Application of XAFS spectroscopy for study of microparticles of Sikhote-Alin meteorite (1 minute)	Dr KRIVENTSOV, Vladimir	
[124] Structural study of Pt-complexes in aqueous solution by EXAFS (1 minute)	Dr KRIVENTSOV, Vladimir	
[125] XAFS study of zirconium oxides modified by yttrium and magnesium (1 minute)	Dr KRIVENTSOV, Vladimir	
[128] High resolution monochromator for synchrotron radiation based on flat VLS-gratings (1 minute)	SHATOKHIN, Alexey	
[129] XAFS study of stable bimetallic catalysts for selective hydrogenation of furfural (1 minute)	Dr KRIVENTSOV, Vladimir	
[131] Structural study of mono- bimetallic catalytic nanosystem by XAFS (1 minute)	Dr KRIVENTSOV, Vladimir	
[139] Characteristic of the BiTeCl electronic structure by resonant photoemission (1 minute)	KHATCHENKO, Yulia (M.N. Miheev Institute of Metal Physics of UB RAS, 18 S. Kovalevskaya Str., Ekaterinburg, 620108, Russia)	
[158] Determination of the state of the active component of nanocomposite model metal-carbon catalysts by XAFS method (1 minute)	Dr KRIVENTSOV, Vladimir	
[159] Structural study of bimetallic catalytic nanosystems containing precious metals by XAFS spectroscopy (1 minute)	Dr KRIVENTSOV, Vladimir	
[160] XAFS study of stable bimetallic catalysts for selective hydrogenation of furfural (1 minute)	Dr KRIVENTSOV, Vladimir	

Poster Session: X-ray structural analysis (13 Jul 2020, 21:25-21:37)

[id] title	presenter	
[64] Calculation of thermal loads of X-ray mirror optics of a synchrotron radiation source SKIF (1 minute)	RAZUMOV, Nikolay (Институт химии твердого тела и механохимии СО РАН)	
[84] Measurement of the residual stresses dynamics in tungsten during heating (1 minute)	BALASH, Ilya (Budker INP, NSU)	
[93] Studying the effects of electron beam irradiation on thermal properties and particle size distribution of magnesium hydroxide (1 minute)	NGUYEN, ThiVanAnh (Novosibirsk National State Research University) Dr MIKHAILENKO, Mikhail	
[98] Development of silicon microstrip detector with integrating readout for time-resolved studies in microsecond scale. (1 minute)	SHEKHTMAN, Lev	
[121] Focusing system of synchrotron radiation with refractive mosaic lenses for the station "Extreme state of matter" of the VEPP-4 (1 minute)	BERDYUGIN, Alexandr (INP)	
[127] Current status of the studies of X-ray diffraction on tungsten during pulsed heat loads at the scattering station «Plasma» at the VEPP-4 source of synchrotron radiation (1 minute)	KAZANTSEV, Sergey (Budker Institute of Nuclear Physics)	
[143] Mathematical modeling of thermal loads of x-ray adaptive optics materials (1 minute)	Dr KOROBEKOV, Maksim (Immanuel Kant Baltic Federal University)	
[144] Experimental implementation of X-ray powder diffraction by polychromatic synchrotron radiation in the range of 20-30 keV (1 minute)	TOLOCHKO, Boris (Institute of solid state chemistry and mechanochemistry)	
[148] Comparison of experimental data of 3D density of the expansion zone of TATB detonation products obtained on the synchrotron radiation of VEPP-3 with computer simulation (1 minute)	SMIRNOV, Evgeniy (Russian Federal Nuclear Center - VNIITF)	
[150] Discovery of the scale effect of the dependence of the mass of solid detonation products on the mass of explosives in "in situ" explosive experiments on synchrotron beams VEPP-4 (1 minute)	RUBTSOV, Ivan (Lavrentyev Institute of Hydrodynamics of the Siberian Branch of the Russian Academy of Sciences)	
[152] STUDY THE DIAMOND THIN MEMBRANES BY X-RAY REFLECTOR-INTERFEROMETRY AT THE ESRF BEAMLINE ID10 (1 minute)	Ms LYATUN, Svetlana (Immanuel Kant Baltic Federal University)	

Tuesday 14 July 2020

Time-resolved X-ray diffraction: Plenary 4 - Zoom 890 9721 5207 (14 Jul 2020, 14:00-16:20)

-Conveners: **Marat Sharafutdinov; Boris Tolochko**

time	[id] title	presenter
14:00	[169] Two stage shock wave processes in construction materials (30 minutes)	SMIRNOV, Evgeniy (Russian Federal Nuclear Center - VNIITF)
14:30	[170] Status of detonation experimentat VEPP-3/VEPP-4 (30 minutes)	PRUUEL, Edward
15:00	[41] The use of polychromatic synchrotron radiation to study fast processes in solids. Advantages and challenges. (20 minutes)	Prof. TOLOCHKO, Boris (Institute of solid state chemistry and mechanochemistry)
15:20	[101] Status of the studies of thermal stresses and deformations in materials caused by pulsed heat loads in BINP (20 minutes)	Dr ARAKCHEEV, Aleksey
15:40	[11] Complex Dynamic Study of ejection of the of Particles from Shock-Loaded Tin by SR methods, a PDV laser complex, and optical and piezoelectric sensors. (20 minutes)	TEN, Konstantin (LIH SB RAS)
16:00	[45] Detectors for fast time-resolved studies at SSTRC, status and future (20 minutes)	SHEKHTMAN, Lev

THz radiation application: Plenary 3 - Zoom 860 5034 1820 (14 Jul 2020, 14:00-16:30)

-Conveners: **Boris Knyazev; Vitaly Kubarev**

time	[id] title	presenter
14:00	[63] Recent experiments in Terahertz Photonics, Plasmonics, and Spectroscopy at the Novosibirsk Free Electron Laser Facility (30 minutes)	Prof. KNYAZEV, Boris
14:30	[162] Multichannel THz telecommunication based on mode division multiplexing (MDM) approach (30 minutes)	Prof. PAVELYEV, Vladimir
15:00	[85] Terahertz Photonics of Dence medium: from gas to liquid (30 minutes)	Prof. SHKURINOV, Alexander (Faculty of Physics & International Laser Center, Lomonosov Moscow State University)
15:30	[161] THz nonlinear electronic response in GaAs/InGaAs semiconductor nanowires (30 minutes)	SCHNEIDER, Harald (Helmholtz-Zentrum Dresden-Rossendorf)
16:00	[52] Construction of a biosensor sensitive to terahertz radiation based on the glutamine synthase gene promoter (30 minutes)	PELTEK, Sergey (Institute of Cytology and Genetics SB RAS (Novosibirsk, Russia))

Coffee break (16:30-16:40)

X-ray structural analysis: Oral 3 - Zoom 890 9721 5207 (14 Jul 2020, 16:40-20:30)

-Conveners: **Boris Tolochko; Marat Sharafutdinov**

time	[id] title	presenter
16:40	[87] High Energy Imaging and Diffraction at Diamond Light Source Beamline I12: 11 Years of Experience and Lessons Learned (30 minutes)	Dr CONNOLLEY, Thomas (Diamond Light Source)

17:10	[19] XRD Diagnostics of Functional Materials at SSTRC (20 minutes)	Dr SHMAKOV, Alexander (Boreskov Institute of Catalysis SD RAS)
17:30	[36] Investigation of the local phase composition and morphology of laser welded joints based on titanium and aluminum alloys by hard synchrotron radiation diffraction methods. (20 minutes)	Mr ANCHAROV, Alexey (Institute of Solid State Chemistry and Mechanochemistry SB RAS)
17:50	[34] High-P,T diffraction studies of dehydration of magnesium silicates related to the deep Earth's water cycle (20 minutes)	Dr LIKHACHEVA, Anna (Sobolev Institute of Geology and Mineralogy SibD RAS)
18:10	[113] Structural analysis of catalysts using the atomic pair distribution function (20 minutes)	Dr PAKHARUKOVA, Vera (Boreskov Institute of Catalysis)
18:30	[92] Small-Angle scattering applications to the analysis of aptamer structure and conformational changes (20 minutes)	MORYACHKOV, Roman (Kirensky Institute of Physics)
18:50	[73] Study of Au-Co ultrafine grained alloy by synchrotron radiation diffractometry (20 minutes)	TOLMACHEV, Timofey (M.N. Mikheev Institute of Metal Physics of the Ural Branch of the Russian Academy of Sciences (IMP UB RAS))
19:10	[81] In situ synchrotron x-ray diffraction study of face-centered cubic platinum hydride and phase diagram of PtH (20 minutes)	Ms SEMERIKOVA, Anna (Novosibirsk State University)
19:30	[100] PDF analysis of alumina containing systems (20 minutes)	Dr SHEFER, Kristina (Boreskov Institute of Catalysis SB RAS)
19:50	[146] In situ XRD study of the reduction of mixed Mn-Co oxide (20 minutes)	BULAVCHENKO, Olga (Boreskov Institute of Catalysis)
20:10	[115] Nitrogen doped diamond single crystals for x-ray optics applications (20 minutes)	Mr SHEVYRTALOV, Sergey (Immanuel Kant Baltic Federal University, Kaliningrad, Russia)

THz radiation application: Oral 2 - Zoom 860 5034 1820 (14 Jul 2020, 16:40-19:20)

-Conveners: Boris Knyazev; Vitaly Kubarev

time	[id] title	presenter
16:40	[23] A Terahertz localized laser discharge as a source of bright VUV light (20 minutes)	Dr VODOPYANOV, Alexander (Institute of Applied Physics RAS)
17:00	[25] EPR spectroscopy station at the Novosibirsk Free Electron Laser: application of high-power THz radiation in the field of molecular magnetism (20 minutes)	Dr VEBER, Sergey (International Tomography Center SB RAS)
17:20	[5] MODELING OF TERAHERTZ SURFACE PLASMON FOURIER SPECTROMETER (20 minutes)	Dr GERASIMOV, Vasily (Budker Institute of Nuclear Physics of the Siberian Branch of RAS, Novosibirsk)

17:40	[39] THz sensing based on subwavelength grating in attenuated total reflection configuration (20 minutes)	Mr KAMESHKOV, Oleg (BINP SB RAS) Dr GERASIMOV, Vasily (Budker Institute of nuclear physics SB RAS)
18:00	[57] Magnetic Field Effect on the Free Induction Decay of Hydroxyl Radical (OH) in the Terahertz Region (20 minutes)	CHESNOKOV, Evgeniy (Istitute of Chemical Kinetics)
18:20	[122] Silicon and Diamond Diffractive Lenses with Continuous Profile for Focusing High-Power Terahertz Radiation (20 minutes)	KOMLENOK, Maxim (Prokhorov General Physics Institute of the Russian Academy of Sciences)
18:40	[106] Enhancing resolution of terahertz surface plasmon resonance microscopy by ghost imaging using FEL radiation (20 minutes)	KHASANOV, Ildus (Scientific and Technological Center of Unique Instrumentation of the Russian Academy of Sciences)
19:00	[110] On the efficiency of backward collinear acousto-optic interaction between terahertz radiation and acoustic beam in hexane (20 minutes)	Dr NIKITIN, Pavel (Scientific and Technological Center of Unique Instrumentation of RAS)

Wednesday 15 July 2020

SR technological application and X-ray apparatus: Oral 7 - Zoom 890 9721 5207 (15 Jul 2020, 14:00-16:00)

-Conveners: Anton Nikolenko; Konstantin Kuper

time	[id] title	presenter
14:00	[119] Generation and use of coherent X-ray beams at future SKIF storage ring (20 minutes)	Dr RASHCHENKO, Sergey (Novosibirsk State University)
14:20	[9] The design of «Structural Diagnostics» beamline for SRF «SKIF» (20 minutes)	ZAKHAROV, Boris (Boreskov Institute of Catalysis SB RAS, Novosibirsk State University)
14:40	[163] Conceptual design of the "Fast Processes" beamline at the SRF SKIF 4th generation synchrotron (20 minutes)	RUBTSOV, Ivan (Lavrentyev Institute of Hydrodynamics of the Siberian Branch of the Russian Academy of Sciences)
15:00	[118] In situ XRD analysis with the time-resolution (0.4 ms) of stainless steel in during selective laser melting. (20 minutes)	Dr KUPER, Konstantin
15:20	[8] "Electronic Structure" beamline 1-6 at SKIF synchrotron facility. (20 minutes)	Dr BUKHTIYAROV, Andrey (Boreskov Institute of Catalysis)
15:40	[140] Beam-shaping refractive optics for coherent X-ray sources (20 minutes)	Mr ZVEREV, Dmitry (Immanuel Kant Baltic Federal University)

X-ray spectroscopy: Oral 4 - Zoom 860 5034 1820 (15 Jul 2020, 14:00-16:00)

-Conveners: Vladimir Kriventsov; Valeev, Rishat (Physical-Technical Institute of UB RAS)

time	[id] title	presenter
14:00	[49] Research of nanoscale systems of complex composition by XAFS method at the EXAFS spectroscopy station of SSTRC (20 minutes)	Dr KRIVENTSOV, Vladimir
14:20	[147] Dependence of the spectral and luminescent properties of polymethyl methacrylate on its molecular weight (20 minutes)	LYUBAS, G.A. (ISSCM SB RAS)
14:40	[67] The conduction band of the lanthanide doped chromium disulfides $\text{CuCr}_{0.99}\text{Ln}_{0.01}\text{S}_2$ (Ln=La, Ce, Gd): XANES investigations (20 minutes)	KOROTAEV, Evgeniy (Nikolaev Institute of Inorganic Chemistry of the Siberian Branch of the Russian Academy of Sciences)
15:00	[76] Linear dichroism of NEXAFS spectra and molecular orientation in polypyrrole and polyaniline films electrodeposited on HOPG and vitreous carbon (20 minutes)	SYUGAEV, Alexander (Udmurt Federal Research Center, Ural Branch of Russian Academy of Sciences 132 Kirov Street, 426000 Izhevsk, Russia)
15:20	[102] Application of synchrotron radiation to study the surface atomic structure of 2D materials (20 minutes)	Mr ARKHANDEEV, Igor (M.N. Mikheev Institute of Metal Physics UB RAS, Ekaterinburg, Russia)

15:40	[1] Комбинированный подход к моделированию электронной структуры материалов, содержащих тяжелые переходные металлы, лантаноиды и актиноиды. Применение к галогенидам иттербия, ферсмиту и ксенотиму с примесными атомами урана и тория (20 minutes)	Dr TITOV, Anatoly V. (NRC "Kurchatov institute" -PNPI)
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Coffee break (16:00-16:20)**SR technological application and X-ray apparatus: Oral 8 - Zoom 890 9721 5207 (15 Jul 2020, 16:20-18:00)****-Conveners: Konstantin Kuper; Anton Nikolenko**

time	[id] title	presenter
16:20	[168] Trends on Montel X-ray Optics and Pinholes for Synchrotron Beamlines (20 minutes)	WIESMANN, Jörg (Incoatec GmbH)
16:40	[142] Metrological approach for diagnostics of x-ray refractive lenses (20 minutes)	NARIKOVICH, Anton (IKBFU)
17:00	[7] The Application of Advanced X-Ray Diffraction Image Processing Methods for Study Linear Defects in Silicon Single Crystals (20 minutes)	Dr ZOLOTOV, Denis (Shubnikov Institute of Crystallography FSRC "Crystallography and Photonics" RAS) Dr DYACHKOVA, Irina (FSRC "Crystallography and Photonics" RAS)
17:20	[60] Evaluation of CCD detector absolute responsivity with the aid of synchrotron radiation (20 minutes)	Dr VISHNYAKOV, Eugene (P.N.Lebedev Physical Institute of RAS)
17:40	[116] The modification of optical properties of the surfaces by the glancing angle deposition of TiO ₂ (20 minutes)	LEMZYAKOV, Aleksey (Budker INP SB RAS)

X-ray spectroscopy: Oral 5 - Zoom 860 5034 1820 (15 Jul 2020, 16:20-18:10)**-Conveners: Valeev, Rishat (Physical-Technical Institute of UB RAS); Vladimir Kriventsov**

time	[id] title	presenter
16:20	[88] Angle-resolved photoemission spectroscopy (I05-ARPES) beamline at Diamond: getting insight into electronic structure of solids (30 minutes)	KIM, Timur (Diamond Light Source)
16:50	[107] Ni nanocoatings on porous alumina: structural properties vs matrices porosity (20 minutes)	Dr VALEEV, Rishat (Physical-Technical Institute of UdmFRC UB RAS)
17:10	[111] LUMINESCENT SPECTROSCOPY OF Pr ³⁺ IONS IN SOME PHOSPHATES, BORATES AND SILICATES USING X-RAY SYNCHROTRON RADIATION FROM VEPP-3 STORAGE RING (20 minutes)	KISELEV, Sviatoslav (Ural Federal University)
17:30	[120] Experimental and theoretical X-ray spectroscopic study of electronic structure of sulfur-contained transition metal complexes (20 minutes)	FEDORENKO, Anastasiya (NIIC SB RAS)
17:50	[126] X-RAY PHOTOELECTRON SPECTROSCOPY AND NEAR EDGE X-RAY ABSORPTION FINE STRUCTURE SPECTROSCOPY STUDY OF SYNCHROTRON RADIATION EFFECTS ON FLUORINATED GRAPHITE INTERCALATED N ₂ O ₄ (20 minutes)	SEMUSHKINA, Galina (Nikolaev Institute of Inorganic Chemistry)

Technological solutions for SR centers/beamlines: Oral 9 - Zoom 890 9721 5207 (15 Jul 2020, 18:00-19:00)**-Conveners: Zolotarev, Konstantin (Budker Institute of Nuclear Physics); Anton Nikolenko**

time	[id] title	presenter
18:00	[59] EIGER2 DETECTOR SYSTEMS: TOOLS FOR ADVANCED X-RAY STUDIES (20 minutes)	Dr BRANDSTETTER, Stefan (DECTRIS Ltd.)
18:20	[68] Beamline instrumentation at SKIF by JJ X-Ray (20 minutes)	Mr KRISTIANSEN, Paw (JJ X-ray)
18:40	[86] What does the macromolecular crystallography users community expect from the modern synchrotron source? (1 minute)	ARKHIPOV, Sergey (Novosibirsk State University)

X-ray fluorescent analysis: Oral 6 - Zoom 860 5034 1820 (15 Jul 2020, 18:10-19:30)**-Conveners: Zolotarev, Konstantin (Budker Institute of Nuclear Physics); Darin, Fedor (Budker Institute of Nuclear Physics of Siberian Branch Russian Academy of Sciences (BINP SB RAS))**

time	[id] title	presenter
18:10	[83] Search for and analysis of composition and structure of submicron-size particles in geological samples (20 minutes)	DARIN, Fedor (Budker Institute of Nuclear Physics SB RAS)
18:30	[61] Features of using of the hard X-rays (60 – 120 keV) of synchrotron radiation for determination the trace concentrations of rare-earth and heavy elements by the SRXFA method (20 minutes)	Mr LEGKODYMOV, Aleksandr
18:50	[104] Determination the pattern of spreading and accumulation of essential and trace elements at the benthic samples by using scanning micro-XRF-SR (20 minutes)	BATURINA, Natalya (Novosibirsk State University)

Thursday 16 July 2020

SKIF project - Zoom 860 5034 1820 (16 Jul 2020, 14:00-16:20)

-Conveners: Zolotarev, Konstantin (Budker Institute of Nuclear Physics)

time	[id] title	presenter
14:00	[171] Introduction to the SKIF project (20 minutes)	Prof. BUKHTIYAROV, Valerii (BIC SB RAS)
14:20	[172] Storage ring for Novosibirsk low emittance light source SKIF (20 minutes)	LEVICHEV, Eugeny (BINP)
14:40	[173] SKIF injector complex (20 minutes)	ZHURAVLEV, Andrey (Nikolaevich)
15:00	[50] Superconducting insertion devices constructed by Budker INP (20 minutes)	Dr NIKOLAY MEZENTSEV, Nikolay (Chief researcher)
15:20	[174] First phase SKIF beamlines design (20 minutes)	Dr RAKSHUN, Iakov
15:40	[175] Second phase SKIF beamlines design (20 minutes)	Dr ZUBAVICHUS, Yan
16:00	[176] SKIF civil engineering (20 minutes)	Dr CHURKIN, Igor (Budker INP SB RAS)

Coffee break - Zoom 860 5034 1820 (16:20-17:00)

SKIF project - Zoom 860 5034 1820 (16 Jul 2020, 17:00-18:00)

time	[id] title	presenter
17:00	[177] General discussion (1 hour)	LEVICHEV, Eugeny (BINP)

Friday 17 July 2020

Poster session review, final discussion and Conference closing (Zoom 860 5034 1820) (14:00-16:00)