

**Joint US-CERN-Japan-Russia International Accelerator School 2019, Ion Colliders
Dubna, 28 October — 7 November 2019**

	28.10	29.10	30.10	31.10	01.11	02.11	03.11	04.11	05.11	06.11	07.11		
Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu		
9:00 – 9:50	Arrival day & registration	Opening talks	<i>Towards nuclear physics in electron-radioactive ion collisions</i> Leonid Grigorenko (JINR)	<i>Vacuum technologies</i> Kyo Shibata (KEK)	<i>Electron clouds</i> Alexandr Krasnov (BINP)	Excursion	<i>Injection and extraction</i> Verena Kain (CERN)	<i>Simulation tools: interaction with matter</i> Francesco Cerutti (CERN)	<i>Secondary beams and machine protection</i> Francesco Cerutti (CERN)	<i>Trends and prospects of accelerator physics and technology in Russia</i> Grigory Trubnikov (JINR)	Departure day		
10:00 – 10:50		<i>Modern challenges in HEP: motivation for high energy ion collision</i> Evgeni Kolomeitsev (JINR)	<i>Nonlinear dynamics</i> Kazuhiro Ohmi (KEK)	<i>Ion sources</i> Eugeni Donets (JINR)	<i>Tools for lattice design</i> Mark Boland (CLS)		<i>Superconducting magnets for particles accelerators</i> Sergey Kostromin (JINR)	<i>Linear imperfections and corrections I</i> Elia Gianfelice-Wendt	<i>Linear imperfections and corrections II</i> Elia Gianfelice-Wendt	<i>Electron cooling</i> Vladimir Reva (BINP)			
11:00		Coffee					Coffee						
11:30 – 12:20		<i>Recap of transverse particle dynamics</i> Dmitry Shwartz (BINP)	<i>Asymmetric colliders I: collision energy & Luminosity</i> Igor Meshkov (JINR)	<i>Asymmetric colliders II: space charge & luminosity optimization</i> Igor Meshkov (JINR)	<i>RF-systems</i> Mikhail Lalayan (MEPhi)		<i>Beam instrumentation & diagnostics I</i> Manfred Wendt (CERN)	<i>Collimation of nuclear beams</i> Roderick Bruce (CERN)	<i>Schottky diagnostic</i> Manfred Wendt (CERN)	<i>Bunched beam stochastic cooling</i> Markus Steck (GSI)			
12:30		Lunch					Lunch						
14:00 – 14:50		<i>Recap of longitudinal beam dynamics, RF-gymnastics</i> Elena Shaposhnikova (CERN)	<i>Linacs: RFQ, DTL</i> Sergei Polosov (MEPhi)	<i>Designing a collider. NICA collider — a real life example</i> Anatoly Sidorin (JINR)	<i>Collective effects</i> Yoshihiro Shobuda (JAEA)		<i>Collider luminosity simulation</i> Dmitry Shatilov (BINP)	<i>Beam instrumentation & diagnostics II</i> Manfred Wendt (CERN)	<i>Emittance preservation</i> Verena Kain (CERN)	<i>Oral presentations by students I</i>			
15:00 – 15:50		<i>Overview of electron-ion colliders projects</i> Peter Shatunov (BINP)	<i>Performance highlights from the ISR</i> Fritz Caspers (CERN)	Free time	<i>Outlook: accelerator tasks for physics beyond SM</i> Eugeny Levichev (BINP)		<i>Performance highlights from the RHIC</i> Mei Bai (GSI)	Visit to VBLHEP	<i>Performance highlights from the LHC</i> Schaumann Michaela (CERN)	<i>Oral presentations by students II</i>			
16:00		Tea		Tea			Tea		Tea				

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16:30 – 17:20		Introduction to Case study	Case study		Case study		Q & A		Case study	Oral presentations by students III		
17:30 – 18:20		Case study	Case study		Case study		Q & A		Case study	Discussion and closing		
18:30	Dinner	Welcome Party	Dinner						Banquet	Dinner	Dinner	