Special World Year of Physics Features Indicated By *

SUNDAY, MAY 15

Evening	6:30 – 9:30	Welcome Reception/Registration

MONDAY, MAY 16

8:30–12:20	**Opening Plenary**	(Joint session, no parallel sessions)
8:30– 10:10	*Chair:* *S. Chattopadhyay, JLAB*	*- **Introduction** (*Governor of TN/N. Holtkamp/S. Chattopadhyay)* *- **Einstein, Nobel Prize and Accelerators** *(C. Jarlskog, Lund Univ)* *- **Linear Collier Technology Decision** *(B. Barish, CalTech)*
	Coffee Break	
10:40–12:20	**Opening Plenary** *Chair:* *S. Chattopadhyay, JLAB*	- **PEP-II and KEK-B Operational Status** *(J. Seeman, SLAC)* - **RHIC Operational Status** *(T. Roser, BNL)* - **FNAL Tevatron Operational Status** *(D. McGinnis, FNAL)*
1:50–3:30	**HEHAC:** High Energy Hadron Accelerators and Colliders ***Chair:*** ***V. Shiltsev, FNAL***	- **Advances in the Understanding and Operations of Super conducting Colliders** *(P. Bauer, FNAL)* - **Performance Limitations in High-Energy Ion Colliders** *(W. Fischer, BNL)*
	SAI: Sources and Injectors ***Chair:*** ***J. Alessi, BNL***	- ***An* 8 GeV High Intensity Proton Source** *(B. Foster, FNAL)* - **High Intensity High Charge State ECR Ion Sources** *(D. Leitner, LBNL)*
	MBD: Multiparticle Beam Dynamics ***Chair:*** ***K. Harkay, ANL***	- **Experimental Results from the Small Isochronous Ring** *(E. Pozdeyev, JLAB)* - **Benchmark Space Charge Simulations and Comparison with Experimental Results for High Intensity Low Energy Accelerators** *(S. Cousineau, SNS/ORNL)*
3:30–5:10	**HEHAC**: High Energy Hadron Accelerators and Colliders ***Chair:*** ***W. Barletta, LBNL***	- **Theory and Reality of Beam-Beam Effects at Hadron Colliders** *(Y. Alexahin, FNAL)* - **Polarized Proton Collisions at RHIC** *(M. Bai, BNL)*
	SAI: Sources and Injectors ***Chair:*** ***R. Sheffield, LANL***	- **Frontiers of RF Photoinjectors** *(M. Ferrario, INFN)* - **Future Directions in Electron Sources** *(J. Lewellen, ANL)*
	MBD: Multiparticle Beam Dynamics ***Chair:*** ***S. Henderson, SNS***	- **Simulations and Experiments of Beam-Beam Effects in e+e- Storage Rings** *(Y. Cai, SLAC)* - **Anisotropy-Driven Collective Instabilities in Intense Charged Particle Beams** (*E. Startsev, PPPL)*
1:50–5:30	**Posters**	
5:10–5:30	**Social**	
6:00–9:00	**Chair's Reception**	

TUESDAY, MAY 17

8:30–10:10	**MAG**: Magnets ***Chair:*** ***M. Harrison, BNL***	- **Limits of Nb3Sn Magnets** *(S. Caspi, LBNL)* - **U.S. Accelerator Contribution to the LHC** *(M. Lamm, FNAL)* - **Survey *of* Superconducting Insertion Devices for Light Sources** *(N. Mezentsev, BINP)*
	LSAFEL: Light Sources and Free Electron Lasers ***Chair:*** ***M. Cornacchia, SLAC***	- **VUV/Soft X-Ray FEL Projects on the Horizon** *(R. Bakker, Elettra)* - **First Results from VUV FEL at DESY** *(B. Faatz, DESY)* - **First Results from DUV-FEL Upgrade at BNL** *(X. Wang, BNL)*
	INSTABFB: Instabilities and Feedback ***Chair:*** ***E. Shaposhnikova, CERN***	- **Overview of Impedance and Single-Beam Instability Mechanisms** *(E. Metral, CERN)* - **Beam-Loading Compensation for Super B-Factories** *(D. Teytelman, SLAC)* - **Stochastic Cooling for Bunched Beams** *(M. Blaskiewicz, BNL)*
	Coffee Break	
10:40–12:20	**MAG**: Magnets ***Chair:*** ***TBD***	- **Development of Superconducting Combined Function Magnets for the Proton Transport Line for the J-PARC Neutrino Experiments** *(T. Nakamoto, JParc, KEK)* - **SNS Injection and Extraction Devices** *(D. Raparia, BNL)*
	LSAFEL: Light Sources and Free Electron lasers ***Chair:*** ***L. Rivkin, PSI***	- **First Year of SPEAR 3 Operation** *(R. Hettel, SSRL)* - **Femtoslicing in Storage Rings** *(S. Khan, Bessy II)* - **New Storage Ring Light Sources on the Horizon** *(B. Podobedov, BNL)*
	INSTR: Instrumentation ***Chair:*** ***T. Shea, SNS***	- **Techniques for Pump-Probe Synchrotronization of Fsec Radiation Pulses** (*H. Schlarb, DESY)* - **Novel Tune Diagnostics for the Tevatron** (*C. Tan, FNAL)*
8:30–12:20	**Posters**	
1:50–3:30	**ADCON**: Advanced Concepts ***Chair:*** ***C. Pellegrini, UCLA***	- **Mono Energetic Beams from Laser Plasma Interactions** *(C. Geddes, LBNL)* - **Review of Beam-Plasma Wakefield Experiments** *(M. Hogan, SLAC)* - **Laser Injection of Electrons into Plasma Accelerators** *(J. Cary, Univ. of Colorado, Boulder)*
	LSAFEL: Light Sources and Free Electron Lasers ***Chair:*** ***L. Merminga, JLAB***	- **Methods of attosecond x-ray pulse generation** *(A. Zholents, LBNL)* - **SPPS Results** *(J. Hastings, SLAC)* - **Progress in Large Scale Femtosecond Timing Distribution and RF-Synchronization** *(F. Kaertner, MIT)* - **Overview of Energy Recovery Linacs** *(I. Bazarov, Cornell Univ.)*
	INSTR: Instrumentation ***Chair:*** ***R. Webber, FNAL***	- **Visualizing Electron Beam Dynamics and Instabilities with Synchrotron Radiation at the Advance Photon Source** *(B. Yang, ANL)* - **Residual-Gas-Ionization Beam Profile Monitors in RHIC** (*R. Connolly, BNL)*
3:30–5:10	**ADCON**: Advanced Concepts ***Chair:*** ***W. Leemans, LBNL***	- **High Energy Gain IFEL at Neptune/UCLA** *(P. Musumechi, UCLA)* - **Proton Acceleration and High Energy Density Physics from Laser Foil Interactions** *(K. Krushelnick, Imperial College, London)* - **First Observation of Laser-Driven Particle Acceleration in a Semi-Infinite Vacuum Space** *(T. Plettner, Stanford)*
	DSEM/NPHEP: Development in the South, East and Mid-	- **SC Cyclotron and RIB Facility in Kolkata** *(B. Sinha, VECC, Kolkata, India)* - **BEPC-II in China** *(Z. Chuang, BEPC-II, China)* - **Cooler Storage Ring at China Institute of Modern Physics** *(J. Xia, China*

	East/Nuclear Physics High Energy Physics ***Chair: P. Schmor, TRIUMF***	*Inst. of Modern Physics)*
	LC: Linear Collider ***Chair: G. Dugan, Cornell Univ.***	- **Experience with the TTF-2** (*L. Lilje, DESY)* - **Undulator Based Production of Polarized Positrons (SLAC E-166)** (*K. McDonald, Princeton Univ.)* - **Results from DR and Instrumentation Test Facilities** (*J. Urakawa, KEK)* - **CLIC Progress Towards Multi-TeV Linear Colliders** (J. Delahaye, *CERN)*
1:50–5:30	**Posters**	
5:10–5:30	**Social**	
Evening 6:30–8:00	*** Einstein Special Event: Science and Music: *Jack Liebeck Violin Concert*, accompanied by Piano and *commented by Brian Foster;* Master of Ceremony: S. Chattopadhyay, JLAB**	

WEDNESDAY, MAY 18

8:30–10:10	**LC**: Linear Collider ***Chair: TBD***	- **International Linear Collider (ILC) Design Organization and Plans** (*TBD)* - **Progress and Plans for R&D and the Conceptual Design of the ILC Main Linacs** (*TBD)* - **Progress and Plans for R&D and the Conceptual Design of the ILC Injector Systems** (*TBD)* - **Progress and Plans for R&D and the Conceptual Design of the ILC Beam Delivery Systems** (*TBD)*
	DSEM/LS: Development in the South, East and Mid-East/Light Source ***Chair: M. Poole, Daresbury Lab***	- **Australian Light Source** *(A. Jackson, Australian Light Source, Melbourne)* - **Shanghai Light Source** *(Z. Zhao, Shanghai Light Source, Shanghai)* - **Brazilian Light Source** *(P. Tavares,* B*razilian Light Source, Campinas Brazil)*
	SPBDO: Single Particle Dynamics and Optics ***Chair: V. Lebedev, FNAL***	- **Aberration in Electron Microscopy** *(H. Rose, Darmstadt Tech. Univ.)* - **Chromatically Corrected Imaging Systems for Charged-Particle Radiography** *(B. Blind LANL)* - **Effects of Fringe Fields and Insertion Devices Revealed Through Experimental Frequency Map Analysis** *(P. Kuske, BESSY-II)*
	Coffee Break	
10:40–12:20	**LEAC**: Lepton Accelerators and Colliders ***Chair: A. Hutton, JLAB***	- **Super-B Factories** *(H. Koiso, KEK)* - **Lepton Collider Operation with Constant Currents** *(U. Wienands, SLAC)* - **JLab 12 GeV Upgrade** *(A. Lung, JLAB)*
	DSEM/LS: Development in the South, East and Mid-East/Light Source ***Chair: H. Winick, SSRL, SLAC***	- **INDUS-II** *(V. Sahni, Center for Advanced Technology, Indore, India)* - **SESAME in Jordan** *(G. Vignola, Amman, Jordan)* - **CANDLE Project Overview** *(V.Tsaknov, CANDLE, Armenia)*
	SPBDO: Single Particle Dynamics and Optics ***Chair: A. Chao, SLAC***	- **Design of Large Momentum Acceptance Transport Systems** *(D. Douglas, JLAB)* - **Beam-based Nonlinear Optics Corrections in Colliders** *(F. Pilat, BNL)* - **Measuring and Understanding the Momentum Aperture in a Storage Ring** (C. Steier, LBNL)

8:30–12:20	**Posters**	
1:00–3:00	**DPB/IEEE Awards Reception and Ceremony**	- **Wilson Prize Talk** (*Keith Symon, University of Wisconsin – Madison)* - **Beam Physics Dissertation Talk** (*TBA)*
3:00–5:50	**Special Session : Einstein and World Year of Physics Jointly sponsored by PAC/EPAC/APAC** ***Chair:*** ***W. Madia, Battelle***	* - **Introduction** – *S. Chattopadhyay* * - **Cosmic Acceleration** (*Michael Turner, NSF)* * - **Symmetries** (M. *Kobayashi, KEK)* * - **Cosmic Rays** (Y. *Suzuki, Univ. of Tokyo)* * - **Cooling and Antiprotons** *(C. Rubbia, CERN)*
Evening 6:00–9:00	**City of Knoxville-sponsored World's Fair as an Einstein/World Year of Physics Celebration**	

THURSDAY, MAY 19

8:30–10:10	**LEAC**: Lepton Accelerators and Colliders ***Chair:*** ***K. Oide, KEK, Japan***	- **DAFNE Operation and Plans for DAFNE 2** (*M. Zobov, INFN)* - **CESR-c: Performance of a Wiggler-Dominated Storage Ring** *(S. Temnykh, Cornell Univ.)*
	PPHIB: Pulsed Power and High Intensity Beams ***Chair:*** ***E. Hartouni, BNL***	- **DARHT II Long-Pulse Beam Dynamics Experiments** *(C. Ekdahl, LANL)* - **Advances of Transmission Line Kicker Magnets** *(L. Ducimetière, CERN)* - **Highly Compressed Ion Beams for High Energy Density Science** *(A. Friedman, LLNL)*
	RFSYS: Radiofrequency Systems ***Chair:*** ***S. Tantawi, SLAC***	- **SNS Cavity and Cryomodule Commissioning** *(R. Campisi, ORNL)* - **Overview of LLRF Systems** *(M. Liepe, Cornell Univ.)* - **Superconducting RF for Low-Velocity and Intermediate-Velocity Beams** *(T. Grimm, MSU)*
	Coffee Break	
10:40–12:20	**ACTECH**: Accelerator Technology ***Chair:*** **TBD**	- **Recent Progress in Power Refrigeration Below 2 K for Superconducting Accelerators** (*S. Claudet, CERN)* - **Digital Low-Level RF Controls for Future Superconducting Linear Colliders** *(S. Simrock, DESY)*
	PPHIB: Pulsed Power and High Intensity Beams ***Chair:*** ***K. C. D. Chan, LANL***	- **Pulsed Power Drivers and Diodes for X-ray Radiography** *(K. Thomas, AWE/UK)* - **Pulsed Power Applications in High Intensity Proton Rings** *(W. Zhang, BNL)* - **Solid-State Modulator for RF and Fast Kickers** *(E. Cook, LLNL)*
	RFSYS: Radiofrequency Systems ***Chair:*** ***M. Lynch, LANL***	- **W-Band Source Development at Los Alamos** *(B. Carlsten, LANL)* - **RF Breakdown in Normal Conducting Single-cell Structures** *(V. Dolgashev, SLAC)*
8:30–12:20	**Posters**	
1:50–3:30	**CONCOM**: Controls and Computing ***Chair:*** ***L. Hoff, LBNL***	- **XAL Application Programming Structure** (*J. Galambos, SNS)* - **CLS: A Fully Open-source Control System** *(E. Matias, Canadian Light Source)* - **The Grid** *(W-D. Klotz, ESRF)*
	TICP: Two Stream	- **Suppressing Electron Cloud in Future Linear Colliders** *(M. Pivi, SLAC)*

	Instabilities and Collective Processes ***Chair:*** ***G. Rumolo, GSI***	- **Experiments Studying Desorbed Gas and Electron Cloud in Ion Accelerators** *(A. Molvik, LLNL)* - **Electron Cloud Dynamics in High-Intensity Rings** *(L. Wang, BNL)*
	LAMEAR: Low and Medium Energy Accelerators and Rings ***Chair:*** ***TBD***	- **SNS Warm Linac Commissioning Results** *(A. Aleksandrov, ORNL)* - **J-Parc Commissioning Results** *(K. Hasegawa, JAERI)* - **Status of the Radioactive Ion Beam Factory Project at RIKEN** *(Y. Yano, Riken)*
3:30–5:10	**CONCOM**: Controls and Computing ***Chair:*** ***TBD***	- **Terascale Beam-Beam Simulations for Tevatron, RHIC and LHC** *(J. Qiang, LBNL)* - **Vlasov Simulations of Beam and Halo** *(E. Sonnendrucker, U. Strasbourg)*
	TICP: Two Stream Instabilities and Collective Processes ***Chair:*** ***I. Hofmann, GSI***	- **Filling in the Roadmap for Self-Consistent Electron Cloud and Gas Modeling** *(J. Vay, LBNL)* - **3-D Parallel Simulation Model of Continuous** *(A. Ghalam, USC)* - **Halo Mitigation Using Nonlinear Lattices** *(K. Sonnad, SLAC)*
	LAMEAR: Low and Medium Energy Accelerators and Rings ***Chair:*** ***R. Garnett, LANL***	- **Commissioning of Fermilab's Electron Cooling System for 8-GeV Antiprotons** *(S. Nagaitsev, FNAL)* - **Experimental Progress in Fast Cooling in the ESR** *(M. Steck, GSI)*
1:50–5:30	**Posters**	
5:10–5:30	**Social**	
Evening 7:00–9:30	**Conference Banquet**	

FRIDAY, MAY 20

8:30–10:10	**ACTECH**: Accelerator Technology ***Chair:*** ***P. Kelley, LANL***	- **New Technology in Hydrogen Absorbers for Muon Cooling Channels** *(M. Cummings, Northern Illinois Univ.)* - **Technological Improvements in the DARHT II Accelerator Cells** *(B. Prichard, LANL)* - **HOM Effects in Vacuum System with Short Bunches** *(S. Novokhatski, SLAC)*
	APAC: Application of Accelerators ***Chair:*** ***R. Sah, Siemens Medical Solutions, USA***	- **Compact Neutron Generators for Medical, Home Land Security and Planetary Exploration** *(J. Riejonen, LBNL)* - **Advances in X-band and S-band Linear Accelerators for Medical, Security, NDT Applications** (A. Mishin, AS&E) - **Recent Developments in Hadron Therapy Accelerators** *(TBD)*
	SECBEAM: Secondary Beam Facilities: Neutrons, Muons and Neutrinos ***Chair:*** ***C. Moore, FNAL***	- **High Intensity Muon Beam Facilities with FFAG** *(Y. Kuno, Osaka Univ.)* - **Status of Neutrino Factory** *(TBD)* - **New Concepts in FFAG Design for Secondary Beam Facilities and Other Applications** *(M. Craddock, TRIUMF)*
	Coffee Break	
10:40–12:20	**ACTECH**: Accelerator Technology ***Chair:*** ***W. Oren, JLAB***	- **Remote Handling in High-Power Proton Facilities** (*G. Murdoch, ORNL)* - **Cryomodule Design Concepts and Operating Experience** *(C. Rode, JLAB)* - **SCRF Development at Delhi Nuclear Science** Centre *(A. Roy, SUNY-Albany)*
	APAC: Application of	- **Industrial Applications of High Average Power FELS** *(M. Shinn, JLAB)*

	Accelerators ***Chair:*** ***A. Todd, AES***	- **Compact Synchrotron Light Source** *(R. Ruth, SLAC)* - **Short Pulse Quasi-Monochromatic X-ray Sources** *(TBA)* - **Muon Radiography** *(C. Morris, LANL)*
	EXTBEAM: Extreme Beams ***Chair:*** ***A. Sessler, LBNL***	- **Frozen Beams** *(H. Okamoto, Hiroshima Univ.)* - **Ultra-high Density Electron Beams for Beam Radiation and Beam Plasma Interaction** *(S. Anderson, LLNL)* - **Laboratory Astrophysics Using High Density Particles and Light Beams** *(R. Bingham RAL)*
8:30–12:20	**Posters**	
1:50–5:10	**Closing Plenary Session**	(Joint session, no parallel sessions)
1:50–3:30	***Chair:*** ***N. Holtkamp, SNS***	* - **Science with SNS** *(T. Mason, SNS)* * - **XFEL/Short Pulse Science** *(J. Schneider, DESY)* * - **Challenges and Progress in the FAIR Accelerator Project** *(P. Spiller, GSI)*
3:30–5:10	***Chair:*** ***N. Holtkamp, SNS***	* - **High Intensity Neutrino Beams** (S. Wojcicki, SLAC) * - **Science of Rare Isotope Accelerator (RIA) and the Project Status** *(W. Nazarewicz, Univ. of Tennessee)* - ***Chattopadhyay/Holtkamp***: Closing Remarks

SATURDAY, MAY 21

Tour of the Spallation Source Site – reservations required (more info to come)