

Monday, October 7th

- 8:30 -- 9:00** **MOOPP - Opening Session** (Plenary Room)
Chairs - Kevin A. Brown, Richard Farnsworth
- 9:00 -- 10:00** **MOKPP - Keynote Speaker** (Plenary Room)
Chairs - Kevin A. Brown
Jim Misewich - Associate Lab Director for Energy and Photon Sciences at Brookhaven National Laboratory
- 10:00 -- 11:00** **MOAPP - Project Status Reports** (Plenary Room)
Chairs - Enrique Blanco Vinuela, Sandor Brockhauser
- 10:00 -- 10:15 **MOAPP01** - Control System of SuperKEKB
Hiroshi Kajii - High Energy Accelerator Research Organization (KEK) Accelerator Laboratory
- 10:15 -- 10:30 **MOAPP02** - The SPIRAL2 Control System Validation Campaign Just Before the First Beam
Christophe Haquin - Grand Accélérateur Nat. d'Ions Lourds (GANIL)
- 10:30 -- 10:45 **MOAPP03** - Control System Plans for SNS Upgrade Projects
Steven Hartman - Oak Ridge National Laboratory (ORNL)
- 10:45 -- 11:00 **MOAPP04** - Status of the National Ignition Facility (NIF) Integrated Computer Control and Information Systems
Gordon Brunton - Lawrence Livermore National Laboratory (LLNL) National Ignition Facility Programs Directorate Photon Science and Applications Program
- 11:00 -- 11:30 Coffee Break Exhibition & Poster Area
- 11:30 -- 13:00** **MOBPP - Software Technology Evolution** (Plenary Room)
Chairs - Gianluca Chiozzi, Malte Marquarding
- 11:30 -- 11:45 **MOBPP01** - PLCverif Re-engineered: An Open Platform for the Formal Analysis of PLC Programs
Enrique Blanco Vinuela - European Organization for Nuclear Research (CERN) Beams Department (BE)
- 11:45 -- 12:00 **MOBPP02** - Designing A Control System for Large Experimental Devices Using Web Technology
Wei Zheng - Huazhong University of Science and Technology State Key Laboratory of Advanced Electromagnetic Engineering and Technology
- 12:00 -- 12:15 **MOBPP03** - Fault Tolerant, Scalable Middleware Services Based on Spring Boot, REST, H2 & Infinispan
Wojciech Sliwinski - European Organization for Nuclear Research (CERN) Beams Department (BE)
- 12:15 -- 12:30 **MOBPP04** - The ELT M1 Local Control Software: From Requirements to Implementation
Luigi Andolfato - European Organisation for Astronomical Research in the Southern Hemisphere (ESO)
- 12:30 -- 12:45 **MOBPP05** - Dynamic Control Systems: Advantages and Challenges
Sergi Rubio-Manrique - ALBA-CELLS Synchrotron
- 12:45 -- 13:00 **MOBPP06** - 20 Years of World Class Telescope Control Systems Evolution
Tim Gaggstatter - Gemini Observatory Southern Operations Center
- 13:00 -- 14:30 Lunch Break (on your own)
- 14:30 -- 16:00** **MOCPL - Experiment Control** (Plenary Left)
Chairs - Daniel Lawrence Flath, Steven Hartman
- 14:30 -- 14:45 **MOCPL01** - IBEX: Beamline Control at ISIS Pulsed Neutron and Muon Source
Kathryn Baker - Science and Technology Facilities Council (STFC/RAL/ISIS) Rutherford Appleton Laboratory ISIS Department
- 14:45 -- 15:00 **MOCPL02** - Modernization of Experimental Data Taking at BESSY II
Roland Mueller - Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB) Elektronen-Speicherring BESSY II
- 15:00 -- 15:15 **MOCPL03** - Beamline Experiments at ESRF with BLISS

Matias Guijarro - European Synchrotron Radiation Facility (ESRF)

15:15 -- 15:30 **MOCPL04** - Software Architecture for Automatic LHC Collimator Alignment Using Machine Learning
Gabriella Azzopardi - European Organization for Nuclear Research (CERN) CERN Accelerator School

15:30 -- 15:45 **MOCPL05** - Software Framework QAClient for Measurement/Automation In Proton Therapy Centers
Alexandre Mayor - Paul Scherrer Institut (PSI) Center for Proton Therapy

15:45 -- 16:00 **MOCPL06** - 2D-Nano-Ptychography Imaging Results on the SWING Beamline at Synchrotron SOLEIL
Christer Engblom - Synchrotron Soleil (SOLEIL)

14:30 -- 16:00 MOCPR - Systems Engineering, Collaborations, Project Management (Plenary Right)
Chairs - Martin Pieck, Lucas Russo

14:30 -- 14:45 **MOCPR01** - Graduate Software Engineer Development Program at Diamond Light Source
Andrew Wilson - Diamond Light Source Ltd (DLS)

14:45 -- 15:15 **MOCPR02** - The EPICS Collaboration Turns 30
Andrew Johnson - Argonne National Laboratory (ANL) Advanced Photon Source

15:15 -- 15:30 **MOCPR03** - Planning of Interventions With the Atlas Expert System
Ignacio Asensi Tortajada - European Organization for Nuclear Research (CERN) Experimental Physics (EP)

15:30 -- 15:45 **MOCPR04** - Moving Beyond Bias
Karen White - Oak Ridge National Laboratory (ORNL)

15:45 -- 16:00 **MOCPR05** - CI-CD Practices With the Tango-Controls Framework in the Context of the Square Kilometre Array (SKA) Telescope Project
Matteo Di Carlo - INAF - OA Teramo

16:00 -- 16:30 Coffee Break Exhibition & Poster Area

16:30 -- 17:00 MOMPL - Mini-Oral Session (Plenary Left)
Chairs - Markus Janousch, Manuel Gonzalez-Berges

16:30 -- 16:33 **MOMPL001** - Quality Assurance Plan for the SCADA System of the Cherenkov Telescope Array Observatory
Elisa Antolini - Cherenkov Telescope Array Observatory gGmbH

16:33 -- 16:36 **MOMPL002** - Enabling Remote HDF5 Browsing and Visualization on Facility Portals
Carlos Reis - CERIC-ERIC

16:36 -- 16:39 **MOMPL003** - A Semi-Beginner's Lessons Learned in PCB Layout of PWM Switched NMOS FETs
Allen Paj - SLAC National Accelerator Laboratory LCLS Department

16:39 -- 16:42 **MOMPL004** - Software-based Event Formation at European Spallation Source
Morten Jagd Christensen - European Spallation Source Data Management and Software Centre

16:42 -- 16:45 **MOMPL005** - Framework for Integrating Experiment-Preconditioning Subsystems to Support Downline Shots on the Z Machine
Drew Johnson - Sandia National Laboratories

16:45 -- 16:48 **MOMPL006** - Automatic Deployment in a Control System Environment
Martin Gregor Konrad - Facility for Rare Isotope Beams, Michigan State University

16:48 -- 16:51 **MOMPL007** - The Design of Intelligent Integrated Control Software Framework of Facilities for Scientific Experiments
Jun Luo - Institute of Computer Application China Academy of Engineering Physics

16:51 -- 16:54 **MOMPL008** - New Neutron Beam Loss Monitor (nBLM)
Yannick Mariette - Commissariat à l'Energie Atomique et aux Energies Alternatives Institut de Recherche sur les lois Fondamentales de l'Univers

16:54 -- 16:57 **MOMPL009** - Control System Virtualization at Karlsruhe Research Accelerator
Wolfgang Mexner - Karlsruhe Institute of Technology Institute for Beam Physics and Technology

16:30 -- 17:00 MOMPR - Mini-Oral Session (Plenary Right)
Chairs - Anton Johan Venter, Susanne Regnell

16:30 -- 16:33 **MOMPR001** - A Data Acquisition Application of CSNS

- Jian Zhuang - Institute of High Energy Physics Chinese Academy of Sciences Experimental Physics Center
- 16:33 -- 16:36 **MOMPR002** - Improving User Information by Interfacing the Slow Control's Log and Alarm Systems to a Flexible Chat Platform
Michael Ritzert - Heidelberg University
- 16:36 -- 16:39 **MOMPR003** - Data Visualization With Data Browser Software
Katy Saintin - Commissariat à l'Energie Atomique et aux Energies Alternatives Institut de Recherche sur les lois Fondamentales de l'Univers
- 16:39 -- 16:42 **MOMPR004** - Control and Analysis Software Development at the European XFEL
Hugo Santos - European XFEL GmbH
- 16:42 -- 16:45 **MOMPR005** - Research and Development of a New Photon Counting Detector for Pump-Probe Experiments at SOLEIL Synchrotron
Gauthier Thibaux - Synchrotron Soleil
- 16:45 -- 16:48 **MOMPR006** - Performance of the ALICE Luminosity Leveling Software Architecture in the Pb-Pb Physics Run
Gianluca Valentino - University of Malta Information and Communication Technology
- 16:48 -- 16:51 **MOMPR007** - Scalable High Demand Analytics Environments with Heterogeneous Clouds
Kevin Woods - Tessella
- 16:51 -- 16:54 **MOMPR008** - SharePoint for HEPS Technical Systems and Project Management
Xuehui Wu - Chinese Academy of Sciences Institute of High Energy Physics
- 16:54 -- 16:57 **MOMPR009** - Prototype Design for Upgrading EAST Safety and Interlock System
Zuchao Zhang - Institute of Plasma Physics Chinese Academy of Sciences
- 17:00 -- 18:45 **MOPHA - Poster Session**
- 17:00 -- 18:45 **MOSH1 - Speakers' Corner 1**
Chairs - Seth Nemesure
MOSH1001 - Current Status of KURAMA-II
Minoru Tanigaki - Kyoto University Research Reactor Institute
MOSH1002 - adviwer: The EPICS Area Detector Configurator You Didn't Know You Needed
Kenneth Lauer - SLAC National Accelerator Laboratory
- 17:00 -- 18:45 **MOSH2 - Speakers' Corner 2**
Chairs - Seth Nemesure
- 17:00 -- 18:45 **MOSH3 - Speakers' Corner 3**
Chairs - Seth Nemesure
MOSH3001 - An EPICS Channel Access Implementation on Siemens PLCs
Miklos Boros - evopro Holding Zrt. The evopro group
MOSH3002 - Standardized Approach for Automatic Measurement and Application of Local Feed-Forward Correction for Insertion Devices
Grzegorz Wawrzyniec Kowalski - Solaris National Synchrotron Radiation Centre Jagiellonian University
- 17:00 -- 18:45 **MOSH4 - Speakers' Corner 4**
Chairs - Seth Nemesure
MOSH4001 - A Library of Fundamental Building Blocks for Experiment Control Software
Martin Scarcia - Elettra-Sincrotrone Trieste S.C.p.A.
MOSH4002 - A Cloud Based Framework for Advanced Accelerator Controls
Jonathan Edelen - RadiaSoft LLC

Tuesday, October 8th

- 8:30 -- 9:30 TUKPP - Keynote Speaker** (Plenary Room)
Chairs - Andrew Götz
Florence Hudson - Founder and CEO of FDHint, LLC
- 9:30 -- 10:45 TUAPP - Hardware Technology** (Plenary Room)
Chairs - Timo Korhonen, Scott Cogan
- 9:30 -- 9:45 **TUAPP01** - Hardware-in-the-Loop Testing of Accelerator Firmware
Carlos Serrano - Lawrence Berkeley National Laboratory (LBNL)
- 9:45 -- 10:00 **TUAPP02** - Development of the MTCA.4 I/O Cards for SPring-8 Upgrade and New 3 GeV Light Source
Toru Fukui - RIKEN SPring-8 Center Innovative Light Sources Division
- 10:00 -- 10:15 **TUAPP03** - Low-Cost Modular Platform for Custom Electronics in Radiation-Exposed and Radiation-Free Areas at CERN
Grzegorz Daniluk - European Organization for Nuclear Research (CERN) Beams Department (BE)
- 10:15 -- 10:30 **TUAPP04** - Extending the Life of the VME Infrastructure at BNL
Winston Pekrul - Brookhaven National Laboratory (BNL) Collider-Accelerator Department
- 10:30 -- 10:45 **TUAPP05** - PandABlocks - a Flexible Framework for Zynq7000-Based SoC Configuration
Glenn Christian - Diamond Light Source Ltd (DLS)
- 10:45 -- 11:15 Coffee Break Exhibition & Poster Area
- 11:15 -- 13:00 TUBPL - Data Management** (Plenary Left)
Chairs - Vincent Hardion, Susanne Regnell
- 11:15 -- 11:45 **TUBPL01** - Automatic Web Application Generation From an Irradiation Experiment Data Management Ontology (IEDM)
Blerina Gkotse - European Organization for Nuclear Research (CERN)
- 11:45 -- 12:00 **TUBPL02** - Enabling Open Science for Photon and Neutron Sources
Andrew Gotz - European Synchrotron Radiation Facility (ESRF)
- 12:00 -- 12:15 **TUBPL03** - Experimental Data Transfer System BENTEN at SPring-8
Takahiro Matsumoto - Japan Synchrotron Radiation Research Institute (JASRI) Information-technology Promotion Division
- 12:15 -- 12:30 **TUBPL04** - Public Cloud-based Remote Access Infrastructure for Neutron Scattering Experiments at MLF, J-PARC
Kentaro Moriyama - Comprehensive Research Organization for Science and Society (CROSS) Neutron Science and Technology Center
- 12:30 -- 12:45 **TUBPL05** - RecSyncETCD: A Fault-tolerant Service for EPICS PV Configuration Data
Tanvi Ashwarya - Facility for Rare Isotope Beams (FRIB) Michigan State University Cyclotron Laboratory
- 12:45 -- 13:00 **TUBPL06** - Energy Consumption Monitoring With Graph Databases and Service Oriented Architecture
Anargyros Kiourkos - European Organization for Nuclear Research (CERN)
- 11:15 -- 13:00 TUBPR - Timing and Synchronization** (Plenary Right)
Chairs - Oscar Matilla, Nicolas Janvier
- 11:15 -- 11:45 **TUBPR01** - The Distributed Oscilloscope: A Large Scale Fully Synchronized Data Acquisition System Over White Rabbit
Dimitrios Lampridis - European Organization for Nuclear Research (CERN) Beams Department (BE)
- 11:45 -- 12:00 **TUBPR02** - A 4-Channel, 7 ns-Delay Tuning Range, 400 fs-Step, 1.8 ps RMS Jitter, Delay Generator Implemented in a 180 nm CMOS Technology
Franck Badets - Commissariat à l'Energie Atomique (CEA)
- 12:00 -- 12:15 **TUBPR03** - Major Upgrade of the HIT Accelerator Control System Using PTP and TSN Technology
Andreas Peters - Heidelberg Ionenstrahl-Therapie Centrum (HIT) HIT Betriebs GmbH am Universitätsklinikum Heidelberg
- 12:15 -- 12:30 **TUBPR04** - The Diagnose of Event Timing System in SuperKEKB Linac
Di Wang - Sokendai, the Graduate University for Advanced Studies (Sokendai) Department of Accelerator Science
- 12:30 -- 12:45 **TUBPR05** - LEReC Timing Synchronization With RHIC Beam
Prerana Kankiya - Brookhaven National Laboratory (BNL) Collider-Accelerator Department
- 12:45 -- 13:00 **TUBPR06** - Laser Megajoule Timing System

- 13:00 -- 14:15 Lunch Break (on your own)
- 14:15 -- 16:00 TUCPL - Feedback Control and Process Tuning (Plenary Left)**
Chairs - Marco Lonza, Eric Norum
- 14:15 -- 14:30 **TUCPL01** - Adding Machine Learning to the Analysis and Optimization Toolsets at the Light Source BESSY II
Luis Vera Ramirez - Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB) Elektronen-Speicherring BESSY II
- 14:30 -- 14:45 **TUCPL02** - Processing System Design for Implementing a Linear Quadratic Gaussian (LQG) Controller to Optimize the Real-Time Correction of High Wind-Blown Turbulence
Mike Kim - Lawrence Livermore National Laboratory (LLNL) Computation Directorate Computing Applications and Research Department, NHI-CAD
- 14:45 -- 15:00 **TUCPL03** - The LMJ Target Diagnostics Integration
Sandrine Tranquille-Marques - Commissariat à l'énergie atomique et aux énergies alternatives (CEA) CEA /CESTA
- 15:00 -- 15:15 **TUCPL04** - A Model-Based Simulator for the LCLS Accelerator
Matt Gibbs - SLAC National Accelerator Laboratory (SLAC)
- 15:15 -- 15:30 **TUCPL05** - ESRF-Double Crystal Monochromator Prototype - Control Concept
Maxim Brendike - European Synchrotron Radiation Facility (ESRF)
- 15:30 -- 15:45 **TUCPL06** - Accelerating Machine Learning for Machine Physics (an AMALEA-project at KIT)
Wolfgang Mexner - Karlsruhe Institute of Technology (KIT) Institute for Beam Physics and Technology
- 15:45 -- 16:00 **TUCPL07** - Optimal Control for Rapid Switching of Beam Energies for the ATR Line at BNL
Jonathan Edelen - RadiaSoft LLC
- 14:15 -- 16:00 TUCPR - User Interfaces, User Perspective, and User Experience(UX) (Plenary Right)**
Chairs - Reinhard Bacher, Norihiko Kamikubota
- 14:15 -- 14:30 **TUCPR01** - Developing a Toolkit for Analysis of LCLS Pump-Probe Data
Silke Nelson - SLAC National Accelerator Laboratory (SLAC) LCLS Department
- 14:30 -- 14:45 **TUCPR02** - Data Exploration and Analysis with Jupyter Notebooks
Hans Fangohr - European XFEL GmbH (EuXFEL)
- 14:45 -- 15:00 **TUCPR03** - Our Journey from Java to PyQt and Web for CERN Accelerator Control GUIs
Ivan Sinkarenko - European Organization for Nuclear Research (CERN) Beams Department (BE)
- 15:00 -- 15:15 **TUCPR04** - Improving User Experience in Complex Systems
Matt Clarke - European Spallation Source (ESS) Data Management and Software Centre
- 15:15 -- 15:30 **TUCPR05** - UX Focused Development Work During Recent ORNL EPICS-Based Instrument Control System Upgrade Projects
Xingxing (Marie) Yao - Oak Ridge National Laboratory (ORNL)
- 15:30 -- 15:45 **TUCPR06** - Fast Interactive Python-based Analysis of Streamed Images
Andrei Sukhanov - Brookhaven National Laboratory (BNL) Collider-Accelerator Department
- 15:45 -- 16:00 **TUCPR07** - High-level Physics Controls Applications Development for FRIB
Tong Zhang - Facility for Rare Isotope Beams, Michigan State University (FRIB)
- 16:00 -- 16:30 Coffee Break Exhibition & Poster Area
- 16:30 -- 17:30 TUDPP - Control System Infrastructure (Plenary Room)**
Chairs - Stephane Perez, Lisa Belk
- 16:30 -- 16:45 **TUDPP01** - A Monitoring System for the New ALICE O2 Farm
Gioacchino Vio - Istituto Nazionale di Fisica Nucleare (INFN-Bari) Sezione di Bari
- 16:45 -- 17:00 **TUDPP02** - Data Acquisition System for the APS Upgrade
Sinisa Veseli - Argonne National Laboratory (ANL) Advanced Photon Source
- 17:00 -- 17:15 **TUDPP03** - Improvement of EPICS Software Deployment at NSLS-II

Anton Derbenev - Brookhaven National Laboratory (BNL) National Synchrotron Light Source II

17:15 -- 17:30 **TUDPP04** - Data Acquisition and Virtualization of the CLARA Control System

Rory Clarke - Science and Technology Facilities Council (STFC/DL) Daresbury Laboratory

Wednesday, October 9th

8:30 -- 9:30 WEKPP - Keynote Speaker (Plenary Room)

Chairs - Javier Serrano

Allison Bishop - Co-Founder and President of Proof Trading

9:30 -- 10:30 WEAPP - Control System Infrastructure (Plenary Room)

Chairs - Alain Buteau, Stephane Perez

9:30 -- 9:45 **WEAPP01** - Old and New Generation Control Systems at ESA

Mauro Pecchioli - European Space Operations Centre (ESA/ESOC) European Space Agency

9:45 -- 10:00 **WEAPP02** - Modernization Challenges For The Information Technology Infrastructure At The National Ignition Facility

Allan Casey - Lawrence Livermore National Laboratory (LLNL) National Ignition Facility Programs Directorate National Ignition Facility Project

10:00 -- 10:15 **WEAPP03** - Converting the JLab Accelerator Computing Environment from NIS to LDAP/Redhat IDM

Theo McGuckin - Thomas Jefferson National Accelerator Facility (JLab)

10:15 -- 10:30 **WEAPP04** - ESS ICS Infrastructure Deployment Overview

Benjamin Bertrand - European Spallation Source ERIC (ESS)

10:30 -- 11:30 WEBPP - Device Control and Integrating Diverse Systems (Plenary Room)

Chairs - Gordon Brunton, Johan Venter

10:30 -- 10:45 **WEBPP01** - Control System Development and Integration at ELI-ALPS

Lajos Fulop - ELI-HU Nonprofit Ltd. (ELI-ALPS)

10:45 -- 11:00 **WEBPP02** - Centralized System Management of IPMI Enabled Platforms Using EPICS

Klemen Vodopivec - Oak Ridge National Laboratory (ORNL) Spallation Neutron Source Accelerator Systems Division

11:00 -- 11:15 **WEBPP03** - The Laser Megajoule Facility : Front End's Control System

Julien Langot - Commissariat à l'énergie atomique et aux énergies alternatives (CEA) CEA /CESTA

11:15 -- 11:30 **WEBPP04** - P99: An Optical Beamline for Offline Technique Development and Systems Integration for Prototype Beamline Instrumentation

Aaron Parsons - Diamond Light Source Ltd (DLS)

11:30 -- 12:00 Coffee Break Exhibition & Poster Area

12:00 -- 13:15 WECPL - Control System Upgrades (Plenary Left)

Chairs - Matthew H. Bickley, Andrea Orlati

12:00 -- 12:15 **WECPL01** - Status of the Control System for Fully Integrated SACLA/SPring-8 Accelerator Complex and New 3 GeV Light Source Being Constructed at Tohoku, Japan

Takashi Sugimoto - Japan Synchrotron Radiation Research Institute (JASRI)

12:15 -- 12:30 **WECPL02** - Roadmap to 100 Hz DAQ at SwissFEL: Experiences and Lessons Learned

Tine Celcer - Paul Scherrer Institut (PSI)

12:30 -- 12:45 **WECPL03** - Implementation of the Motion Control System for LCLS-II Undulators

Maria Alessandra Montironi - SLAC National Accelerator Laboratory (SLAC) Accelerator Department

12:45 -- 13:00 **WECPL04** - Beamline Control System Upgrade Strategy for the APS-U

Joseph Sullivan - Argonne National Laboratory (ANL) Advanced Photon Source

13:00 -- 13:15 **WECPL05** - Migrating to Tiny Core Linux in a Controls System

- 12:00 -- 13:15 WECPR - Software Technology Evolution (Plenary Right)**
Chairs - Gianluca Chiozzi, Young-Gi Song
- 12:00 -- 12:15 **WECPR01** - EPICS 7 Core Status Report
Andrew Johnson - Argonne National Laboratory (ANL) Advanced Photon Source
- 12:15 -- 12:30 **WECPR02** - Benefits and Drawbacks of Using Rust in an Existing C/C++ Codebase
Bruno Martins - Facility for Rare Isotope Beams, Michigan State University (FRIB)
- 12:30 -- 12:45 **WECPR03** - Status of the Karabo Control and Data Processing Framework
Gero Flucke - European XFEL GmbH (EuXFEL)
- 12:45 -- 13:00 **WECPR04** - Automated Testing and Validation of Control Parameters
Prerana Kankiya - Brookhaven National Laboratory (BNL) Collider-Accelerator Department
- 13:00 -- 13:15 **WECPR05** - Pulsed Magnet Control System Using COTS PXIe Devices and LabVIEW
Yoshinori Enomoto - High Energy Accelerator Research Organization (KEK)
- 13:00 -- 14:30 Lunch Break (on your own)
- 14:30 -- 16:00 Panel Discussion: Breaking Down Barriers to Diversity and Inclusion** Plenary Room
Chairs - Karen S White
- 16:00 -- 16:30 Coffee Break Exhibition & Poster Area
- 16:30 -- 17:30 WEDPL - Control System Upgrades (Plenary Left)**
Chairs - Matthew Bickley, Enrique Blanco
- 16:30 -- 16:45 **WEDPL01** - In-Place Technology Replacement of a 24x7 Operational Facility: Key Lessons Learned and Success Strategies From the NIF Control System Modernization
Mikhail Fedorov - Lawrence Livermore National Laboratory (LLNL)
- 16:45 -- 17:00 **WEDPL02** - ALiECS: A New Experiment Control System for the Alice Experiment
Teo Mrnjavac - European Organization for Nuclear Research (CERN) Experimental Physics (EP)
- 17:00 -- 17:15 **WEDPL03** - International Collaboration for the Development of TwinCAT Motion Control Software for Neutron Instruments
Simon Cooper - Science and Technology Facilities Council (STFC/RAL/ISIS) Rutherford Appleton Laboratory ISIS Department
- 17:15 -- 17:30 **WEDPL04** - Consolidation and Redesign of CERN Industrial Controls Frameworks
Piotr Golonka - European Organization for Nuclear Research (CERN)
- 16:30 -- 17:30 WEDPR - User Interfaces, User Perspective, and User Experience(UX) (Plenary Right)**
Chairs - Norihiko Kamikubota, Reinhard Bacher
- 16:30 -- 16:45 **WEDPR01** - Cumbia: Graphical Libraries and Formula Plugin To Combine and Display Data From Tango, EPICS and More
Giacomo Strangolino - Elettra-Sincrotrone Trieste S.C.p.A.
- 16:45 -- 17:00 **WEDPR02** - Benefits of Low Code Development Environments on Large Scale Control System
Bertrand Lefort - European Organization for Nuclear Research (CERN) CERN Accelerator School
- 17:00 -- 17:15 **WEDPR03** - Synoptic GUIs in NSRC SOLARIS for Beamlines and Accelerators Visualization and Control
Michal Falowski - Solaris National Synchrotron Radiation Centre Jagiellonian University
- 17:15 -- 17:30 **WEDPR04** - The Web as the Primary Control System User Interface
Richard Neswold - Fermi National Accelerator Laboratory (Fermilab) Accelerator Division
- 17:30 -- 18:00 WEMPL - Mini-Oral Session (Plenary Left)**
Chairs - Steven M. Hartman, Lisa Belk
- 17:30 -- 17:33 **WEMPL001** - An Application of Machine Learning for the Analysis of Temperature Rise on the Production Target in Hadron Experimental Facility at J-PARC

Keizo Agari - High Energy Accelerator Research Organization Institute of Particle and Nuclear Studies
 17:33 -- 17:36 **WEMPL002** - Project Nheengatu: EPICS support for CompactRIO FPGA and LabVIEW-RT
Dawood Alnajjar - Brazilian Synchrotron Light Laboratory
 17:36 -- 17:39 **WEMPL003** - Front End Electronics Module Design for the Schwarzschild-Couder Telescope (SCT) Camera
Massimiliano Bitossi - Istituto Nazionale di Fisica Nucleare, Pisa
 17:39 -- 17:42 **WEMPL004** - Inception of a Learning Organization to Improve SOLEIL's Operation
Alain Buteau - Synchrotron Soleil
 17:42 -- 17:45 **WEMPL005** - A Technology Downselection for SKA User Interface Generator
Matteo Canzari - INAF - OA Teramo
 17:45 -- 17:48 **WEMPL006** - The Miniscule ELT Control Software: Design, Architecture and HW integration
Carlos Diaz Cano - European Organisation for Astronomical Research in the Southern Hemisphere
 17:48 -- 17:51 **WEMPL007** - EPICS Controlled Wireless Sensors
Kazimierz Gofron - Brookhaven National Laboratory National Synchrotron Light Source
 17:51 -- 17:54 **WEMPL008** - The MAX IV Way of Agile Project Management for the Control System
Vincent Hardion - MAX IV Laboratory Lund University
 17:54 -- 17:57 **WEMPL009** - Tracking APS-U Production Components With the Component Database and eTraveler Applications
Dariusz Piotr Jarosz - Argonne National Laboratory Advanced Photon Source
 17:57 -- 18:00 **WEMPL010** - Data Streaming With Apache Kafka for CERN Supervision, Control and Data Acquisition System for Radiation and Environmental Protection
Adrien Ledeul - European Organization for Nuclear Research

17:30 -- 18:00 WEMPR - Mini-Oral Session (Plenary Right)
 Chairs - Lucas Maziero Russo, Malte Marquarding
 17:30 -- 17:33 **WEMPR001** - Data Analysis Infrastructure for Diamond Light Source Macromolecular & Chemical Crystallography and Beyond
Gerstel Markus - Diamond Light Source Ltd
 17:33 -- 17:36 **WEMPR002** - Storing, Monitoring and Searching Meerkat Radio Telescope Log Messages
Ofaletse James Mokone - SKA South Africa National Research Foundation of South Africa Department of Science and Technology
 17:36 -- 17:39 **WEMPR003** - Exploring Embedded Systems' Dedicated Cores for Real-Time Applications
Patricia Henriques Nallin - Brazilian Synchrotron Light Laboratory
 17:39 -- 17:42 **WEMPR004** - Why You Should Invest in Asset Management: A Fire and Gas Use Case
Henrik Nissen - European Organization for Nuclear Research General Infrastructure Services Department (GS)
 17:42 -- 17:45 **WEMPR005** - The Array Control and Data Acquisition System of the Cherenkov Telescope Array
Igor Oya - Cherenkov Telescope Array Observatory gGmbH
 17:45 -- 17:48 **WEMPR006** - Application Development in the Face of Evolving Web Technologies at the National Ignition Facility
Eric Russell Pernice - Lawrence Livermore National Laboratory National Ignition Facility Programs Directorate National Ignition Facility Project
 17:48 -- 17:51 **WEMPR008** - Web Extensible Display Manager 2
Ryan Joseph Slominski - Thomas Jefferson National Accelerator Facility
 17:51 -- 17:54 **WEMPR009** - Development of Event Receiver on Zynq7000 Evaluation Board
Hitoshi Sugimura - High Energy Accelerator Research Organization
 17:54 -- 17:57 **WEMPR010** - Anomaly Detection for CERN Beam Transfer Installations Using Machine Learning
Pieter Van Trappen - European Organization for Nuclear Research Technology Department (TE)

18:00 -- 19:45 WEPHA - Poster Session

 18:00 -- 19:45 **WESH1 - Speakers' Corner 1**
 Chairs - Seth Nemesure
WESH1002 - New Java Frameworks for Building Next Generation EPICS Applications
Kunal Shroff - Brookhaven National Laboratory National Synchrotron Light Source II

WESH1003 - jddd Migration to OpenJDK: Benefits and Pitfalls
Elke Sombrowski - Deutsches Elektronen-Synchrotron

18:00 -- 19:45 **WESH2 - Speakers' Corner 2**
Chairs - Seth Nemesure
WESH2001 - CS-Studio Alarm System Based on Kafka
Kay-Uwe Kasemir - Oak Ridge National Laboratory Spallation Neutron Source
WESH2002 - EPICS PV Access control at European Spallation Source (ESS)
Georg Weiss - European Spallation Source ERIC
WESH2003 - Toward Always Production Ready Of A Nontrivial Distributed Software System
Sett Wai - SKA South Africa National Research Foundation of South Africa Department of Science and Technology

18:00 -- 19:45 **WESH3 - Speakers' Corner 3**
Chairs - Seth Nemesure
WESH3001 - The Bluesky Project: A Multi-Facility Collaboration for Data Acquisition and Management
Daniel Allan - Brookhaven National Laboratory NSLS II
WESH3002 - Control System for Fast Components of Electron Beam Welding Machines
Alexey Vladimirovich Gerasev - Russian Academy of Sciences The Budker Institute of Nuclear Physics
WESH3003 - Waltz - A Platform for Tango Controls Web Applications
Igor Khokhriakov - Helmholtz-Zentrum Geesthacht

18:00 -- 19:45 **WESH4 - Speakers' Corner 4**
Chairs - Seth Nemesure
WESH4001 caproto: An EPICS Channel Access Interface in Pure Python
Kenneth Lauer - SLAC National Accelerator Laboratory
WESH4002 A PyDM User Interface for a LCLS Simulator
Matt Gibbs - SLAC National Accelerator Laboratory
WESH4003 Continuous Integration for PLC-based Control Systems
Brad Schofield - European Organization for Nuclear Research Beams Department (BE)

Thursday, October 10th

8:30 -- 9:30 **THKPP - Keynote Speaker** (Plenary Room)
Chairs - Alessandro Ercolani
Gabriele Vajente - California Institute of Technology

9:30 -- 11:00 **THAPP - Device Control and Integrating Diverse Systems** (Plenary Room)
Chairs - Mark Heron, Dennis Nicklaus

9:30 -- 9:45 **THAPP01** - Automatic Generation of PLC Projects Using Standardized Components and Data Models
Sylvia Huynh - European XFEL GmbH (EuXFEL)

9:45 -- 10:00 **THAPP02** - The Control System of the Elliptical Cavity and Cryomodule Test Stand Demonstrator for ESS
Alexis Gaget - Commissariat à l'Energie Atomique (CEA-DRF-IRFU) Direction de la Recherche Fondamentale Institut de Recherche sur les lois Fondamentales de l'Univers

10:00 -- 10:15 **THAPP03** - Construction of Beam Monitor Control System for Beam Transport From SACLA to SPring-8
Akio Kiyomichi - Japan Synchrotron Radiation Research Institute (JASRI)

10:15 -- 10:30 **THAPP04** - EPICS Tools for Small Experiment Based on PLC
Katy Saintin - Commissariat à l'Energie Atomique et aux Energies Alternatives (CEA-IRFU) Institut de Recherche sur les lois Fondamentales de l'Univers

- 10:30 -- 10:45 **THAPP05** - Overview of Acquisition and Control Electronics and Concepts for Experiments and Beam Transport at the European XFEL
Patrick Gessler - European XFEL GmbH (EuXFEL)
- 10:45 -- 11:00 **THAPP06** - Double Crystal Monochromator Control System for Energy Materials In-Situ Laboratory Berlin (EMIL)
Andreas Balzer - Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB) Elektronen-Speicherring BESSY II
- 11:00 -- 11:30 Coffee Break Exhibition & Poster Area
- 11:30 -- 12:45 THBPP - Experiment Control** (Plenary Room)
Chairs - Roland Mueller, Daniel Flath
- 11:30 -- 11:45 **THBPP01** - Building the Control System to Operate the Cryogenic Near Infrared Spectropolarimeter Instrument for the Daniel K. Inouye Solar Telescope
Rebecca Williams - Observatory Sciences Ltd (OSL)
- 11:45 -- 12:00 **THBPP02** - DonkiOrchestra: A Software Trigger-Driven Framework for Data Collection and Experiment Management Based on Zeromq Distributed Messaging
Roberto Borghes - Elettra-Sincrotrone Trieste S.C.p.A.
- 12:00 -- 12:15 **THBPP03** - Deep Learning Methods on Neutron Scattering Data
Paolo Mutti - Institut Laue-Langevin (ILL)
- 12:15 -- 12:30 **THBPP04** - Hard X-Rays Pair Distribution Function (PDF) Beamline and End-Station Control System
Oksana Ivashkevych - Brookhaven National Laboratory (BNL) National Synchrotron Light Source II
- 12:30 -- 12:45 **THBPP05** - Implementing Odin as a Control and Data Acquisition Framework for Eiger Detectors
Gary Yendell - Diamond Light Source Ltd (DLS)
- 12:45 -- 14:00 Lunch Break (on your own)
- 14:00 -- 16:00 THCPL - Data Analytics** (Plenary Left)
Chairs - Manuel Gonzalez-Berges, Michael Zelazny
- 14:00 -- 14:30 **THCPL01** - Report From the 2nd ICFA Mini-Workshop on Machine Learning for Charged Particle Accelerators
Andreas Adelman - Paul Scherrer Institut (PSI) Ion Beam Physics
- 14:30 -- 14:45 **THCPL02** - Evolution of Machine Learning for NIF Optics Inspection
Laura Kegelmeyer - Lawrence Livermore National Laboratory (LLNL) National Ignition Facility Programs Directorate National Ignition Facility Project
- 14:45 -- 15:00 **THCPL03** - Machine Learning for Beam Size Stabilization at the Advanced Light Source
Charles Melton - Lawrence Berkeley National Laboratory (LBNL) Advanced Light Source
- 15:00 -- 15:15 **THCPL04** - SCIBORG: Analyzing and Monitoring LMJ Facility Health and Performance Indicators
Jean-Philippe Airiau - Commissariat à l'énergie atomique et aux énergies alternatives (CEA) CEA /CESTA
- 15:15 -- 15:30 **THCPL05** - Signal Analysis for Automated Diagnostic Applied to LHC Cryogenics at CERN
Kurt Martensson - European Organization for Nuclear Research (CERN) Technology Department (TE)
- 15:30 -- 15:45 **THCPL06** - Introducing Big Data Analysis in a Proton Therapy Facility to Reduce Technical Downtime
Pablo Fernandez Carmona - Paul Scherrer Institut (PSI) Center for Proton Therapy
- 15:45 -- 16:00 **THCPL07** - Experience Using NuPIC to Detect Anomalies in Controls Data
Ted D'Ottavio - Brookhaven National Laboratory (BNL) Collider-Accelerator Department
- 14:00 -- 16:00 THCPR - Functional Safety Systems for Machine Protection, Personnel Safety** (Plenary Right)
Chairs - Markus Janousch, Arden Warner
- 14:00 -- 14:15 **THCPR01** - Novel FPGA-Based Instrumentation for Personnel Safety Systems in Particle Accelerator Facility
Stefano Pioli - Istituto Nazionale di Fisica Nucleare (INFN/LNF) Laboratori Nazionali di Frascati
- 14:15 -- 14:30 **THCPR02** - Target Control and Protection Systems Lessons from SNS Operations
Dana Humphreys - Oak Ridge National Laboratory (ORNL RAD) Spallation Neutron Source Research Accelerator Division
- 14:30 -- 14:45 **THCPR03** - A Safety Rated FPGA Framework for Fast Safety Systems
Feng Tao - SLAC National Accelerator Laboratory (SLAC)

- 14:45 -- 15:00 **THCPR04** - The European XFEL Beam Loss Monitor System
Thomas Wamsat - Deutsches Elektronen-Synchrotron
- 15:00 -- 15:15 **THCPR05** - Fast Machine Interlock System and Its Applications
Ming Liu - Shanghai Synchrotron Radiation Facility (SSRF) Shanghai Advanced Research Institute
- 15:15 -- 15:30 **THCPR06** - The ITk Common Monitoring and Interlock System
Susanne Kersten - Bergische Universitaet Wuppertal Fachbereich Physik
- 15:30 -- 15:45 **THCPR07** - Electronics for LCLS-II Beam Containment System Loss Monitors
Ruslan Kadyrov - SLAC National Accelerator Laboratory (SLAC)
- 15:45 -- 16:00 **THCPR08** - SPIRAL2 Machine Protection System Status Report
Quentin Tura - Grand Accélérateur Nat. d'Ions Lourds (GANIL)

16:00 -- 16:15 **Group Photo**

20:00 -- 23:00 **Conference Dinner**

Friday, October 11th

- 8:30 -- 9:30 **FRKPP - Keynote Speaker** (Plenary Room)
 Chairs - Yingbing Yan
Andi Barbour - Brookhaven National Laboratory, NSLS-II
- 9:30 -- 11:00 **FRAPP - Project Status Reports** (Plenary Room)
 Chairs - Sandor Brockhauser, Kazuro Furukawa
- 9:30 -- 9:45 **FRAPP01** - The Laser MegaJoule Facility: Command Control System Status Report
Huques Durandea - Commissariat à l'énergie atomique et aux énergies alternatives (CEA) CEA /CESTA
- 9:45 -- 10:00 **FRAPP02** - Preliminary Engineering Design of the Central Instrumentation and Control Systems for the IFMIF-DONES Plant
Mauro Cappelli - Ente per le Nuove Tecnologie, l'Energia e l'Ambiente (ENEA C.R. Frascati) Sede di Frascati
- 10:00 -- 10:15 **FRAPP03** - Status of the CSNS Accelerator Control System
Chungming Chu - Chinese Academy of Sciences (IHEP) Institute of High Energy Physics
- 10:15 -- 10:30 **FRAPP04** - LCLS-II Science-Instruments Control System, Status and Plans
Daniel Flath - SLAC National Accelerator Laboratory (SLAC)
- 10:30 -- 10:45 **FRAPP05** - Review of Commissioning and First User Operation in Respect to High Level Controls at the European XFEL
Raimund Kammering - Deutsches Elektronen-Synchrotron (DESY)
- 10:45 -- 11:00 **FRAPP06** - Status of the Control System for the Energy Recovery Linac bERLinPro at HZB
Thomas Birke - Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB) Elektronen-Speicherring BESSY II
- 11:00 -- 11:30 **Coffee Break** Exhibition & Poster Area
- 11:30 -- 12:15 **FRXPP - Workshops Summary** (Plenary Room)
 Chairs - Richard Ian Farnsworth
- 12:15 -- 13:00 **FRZPP - Closing Remarks** (Plenary Room)
 Chairs - Kevin A. Brown
- 13:00 -- 19:00 **Brookhaven National Laboratory Tour of NSLS-II and RHIC**