Poster programme

Poster session I

Wednesday 29 March (12:20 – 14:00)

P1:01 IBEX - an EPICS based control system for ISIS pulsed neutron and muon source
Frederick Akeroyd, Science and Technology Facilities Council, UK

P1:02 Unique features of the ESS monolith vessel and its internal atmosphere
Markus Andersson, ÅF/European Spallation Source ERIC, Sweden

P1:03 Challenges in technical risk management for high-power accelerators
Riccard Andersson, European Spallation Source, Sweden

P1:04 Time resolved prompt gamma activation analysis from epithermal neutrons applied to cultural heritage
Laura Arcidiacono, Fermi Center, Italy

P1:05 Recovery of helium refrigerator performance for cryogenic hydrogen moderator system at J-PARC MLF
Tomokazu Aso, Japan Atomic Energy Agency, Japan

P1:06 Thermo-mechanical and structural analysis to support the design optimisation of the TS1 Project beryllium reflector
Andrew Atherton, STFC - High Power Targets Group, UK

P1:07 Detailed analysis of two catalysts for the ortho- to parahydrogen conversion for liquid hydrogen moderators
Thomas Bailey, NC State University, USA

P1:08 Neutronic studies in support of engineering design of the ess target station
Konstantin Batkovi, European Spallation Source ESS ERIC, Sweden

P1:09 Some peculiarities for grazing incidence neutron diffraction from 3D near-surface nanostructures
Alexander Belushkin, Frank Lab. Neutron Phys, Russia

P1:10 Latest developments in the polarized neutron subsystem of McStas 2.4
Erik Bergbäck Knudsen, DTU Physics, Denmark

P1:11 Simulation methods and results of the SINQ cold neutron source upgrade study
Ryan M. Bergmann, PSI - Paul Scherrer Institut, Switzerland

P1:12 Cold moderator cryostat design for the European Spallation Source
Yannick Bessler, Forschungszentrum Juelich GmbH, Germany

P1:13 Thermo-mechanical design of the moderator & reflector plug for the European Spallation Source
Yannick Bessler, Forschungszentrum Juelich GmbH, Germany
P1:14 Radiation shielding design of the ESS active cells facility
Riccardo Bevilacqua, European Spallation Source ERIC, Sweden

P1:15 Development of the control System for the ISIS robotic cryogenic sample changer
Graham Burgess, STFC RAL, UK

P1:16 14 MeV neutrons for medical application: a scientific case 99Mo/99mTc production
Marco Capogni, ENEA Department of Fusion and Technologies for Nuclear Safety and Security / National Institute of Metrology of Ionizing Radiation, Italy

P1:17 Design and analysis of the high pressure cryogenic moderator vessels for the ISIS target station one project
Matthew Capstick, Science and Technology Facilities Council, UK

P1:18 Progress on the time-of-flight ultra small angle neutron scattering instrument at SNS
John M. Carpenter, Argonne National Laboratory, USA

P1:19 Development of sample environment system for DN-12 diffractometer on the IBR-2M pulsed reactor (pressure – temperature – magnetic field)
Alexander Chernikov, Joint Institute for Nuclear Research, Russia

P1:20 The detector systems of the IBR-2M spectrometers
Andrey Churakov, FLNP JINR, Russia

P1:21 Towards a compact Laser based Neutron source
Alessandro Cianchi, University of Rome, Italy

P1:22 Process filtration of liquid methane radiation products using centrifugal separation
Rob Dean, Science and Technology Facilities Council, UK

P1:23 Activation measurements of the concrete, PE-B4C-concrete, for neutron shielding at the European Spallation Source
Eszter Dian, Hungarian Academy of Sciences, Hungary

P1:24 The implementation of the proton beam instrumentation into the proton beam instrumentation plug
Naja Domonville de la Cour, European Spallation Source ERIC, Sweden

P1:25 Helium recovery system at ISIS Neutron Spallation and Muon Source
Richard Down, Science and Technology Facilities Council, UK

P1:26 Figure-of-Merit for a cold coupled moderator at the SNS second target station suited for direct geometry inelastic spectrometers
Georg Ehlers, Oak Ridge National Laboratory, USA

P1:27 Monte Carlo simulations of SESANS experiments using time-gradient magnetic fields
Raúl Victor Erhan, Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering / Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Romania

P1:28 Investigation of novel moderator geometries at the Necsa small accelerator based neutron sources
Chris Franklyn, NECSA, South Africa
P1: 29 Options for a very cold neutron source for the second target station at SNS
Franz X. Gallmeier, Oak Ridge National Laboratory, USA

P1:30 Neutronics analyses for the ORNL's spallation neutron source second target station
Franz X. Gallmeier, Oak Ridge National Laboratory, USA

P1: 31 Upgrade of TOF spectrometer NEAT at Helmholtz Zentrum Berlin – first results
Gerrit Günther, Helmholtz Zentrum Berlin, Germany

P1:32 Helium cooling of Tungsten spallation material
Jens Harborn, ESS ERIC, Sweden

P1:33 Status update of the ESS target system monitoring
Jens Harborn, ESS ERIC, Sweden

P1:34 ESS system synchronization
Jens Harborn, ESS ERIC, Sweden

P1:35 Preliminary neutron dose study in ISIS experimental halls
Chris Evans, Science & Technology Facility Council – ISIS, UK

P1:36 LeWIS: Let’s Write Intricate Simulators
Michael Hart, Science and Technology Facilities Council, UK

P1:37 SasView for small angle scattering data analysis within SINE2020 project
Thomas Holm Rod, European Spallation Source, Sweden

P1:38 Design, manufacturing and evaluation of a metallic plano-elliptical neutron-focusing supermirror for neutron reflectometry and remained technical challenges
Takuya Hosobata, RIKEN, Japan

P1:39 Data mining at SNS neutronics: Buried treasures in archived data
Thomas Huegle, Oak Ridge National Laboratory, USA

P1:40 Development of a neon scattering kernel
Thomas Huegle, Oak Ridge National Laboratory, USA

P1:41 A new total scattering instrument
Silvia Imberti, Science and Technology Facilities Council – ISIS, UK

P1:42 Utsusemi and software applications for the utilization of event-recording data at MLF, J-PARC
Yasuhiro Inamura, Japan Atomic Energy Agency, Japan

P1:43 Energy-independent 3He polarizer for pulsed neutron beams
Alexander Ioffe, FZ Juelich, Germany

P1: 44 Neutron beam characterization at SNS
Erik Iverson, SNS / Oak Ridge National Laboratory, USA
Neutron imaging with modulating permanent magnet sextupole lens
Y Iwashita, Kyoto University, Japan

Poster session II

Thursday 30 March (18:00-19:40)

P2:01 On-beam commissioning of the energy resolved neutron imaging system, RADEN, of J-PARC
Tetsuya Kai, Japan Atomic Energy Agency, Japan

P2:02 Status report of the chopper spectrometer 4SEASONS
Ryoichi Kajimoto, J-PARC - JAEA, Japan

P2:03 The neutron spectrometers in J-PARC
Ryoichi Kajimoto, J-PARC - JAEA, Japan

P2:04 Control and visualization programs, YUI and HANA, for HRC
Daichi Kawana, University of Tokyo, Japan

P2:05 Challenges of remote handling in windowless hot cells
Ronan Kelly, UKAEA (RACE), UK

P2:06 Design study on the accelerator-based pulsed neutron source at KOMAC
Han-Sung Kim, KAERI, Republic of Korea

P2:07 Conceptual design of neutron instruments for 100-MeV proton accelerator-based pulsed neutron source
Kye-Ryung Kim, Korea Atomic Energy Research Institute, Republic of Korea

P2:08 Development of sample environment for neutron scattering experiments at ISIS facility
Oleg Kirichek, Science and Technology Facilities Council, UK

P2:09 Radiation challenges of primary cooling return water at the ESS
Esben Klinkby, Technical University of Denmark, Denmark

P2:10 Neutron guide activation calculations for the European Spallation Source and validation measurements at Budapest Neutron Centre
Zsófia Kókai, European Spallation Source, Sweden

P2:11 Feasibility and applications of the spin-echo modulation option for a small angle neutron scattering instrument at the European Spallation Source
André Kusmin, Delft University of Technology, The Netherlands

P2:12 An innovative use for prompt-self powered neutron detectors: Spectral deconvolution for monitoring high-intensity neutron flux in LFRs
Luigi Lepore, University of Rome, Italy
P2:13 A comparison of strains induced by manufacturing and operational conditions of a tantalum clad tungsten plate of an ISIS TS1 solid target
Yanling Ma, Science and Technology Facilities Council, UK

P2:14 Enhanced instrument performance in vibrational and quasi-elastic TOF spectroscopy by the straightforward use of cross correlation techniques
Salvatore Magazù, University of Messina, Italy

P2:15 Measurement of activation cross sections of the mercury target and the proton beam window materials at J-PARC
Hiroki Matsuda, JAEA, Japan

P2:16 The measurements of neutron energy spectrum for 180 degree with the mercury target at J-PARC
Hiroki Matsuda, JAEA, Japan

P2:17 A portable detector for characterizing high-energy backgrounds at spallation neutron sources
Nicholai Mauritzson, European Spallation Source ERIC, Sweden

P2:18 Development nonlinear optics for mitigation pitting erosion at mercury spallation neutron target
Shin-ichiro Meigo, Japan Atomic Energy Agency/J-PARC, Japan

P2:19 Shielding analysis of transmutation experimental facility
Shin-ichiro Meigo, Japan Atomic Energy Agency/J-PARC, Japan

P2:20 Enhancing data quality: beam modulation schemes for instruments at pulsed neutron sources
Ferenc Mezei, ESS AB, Sweden

P2:21 Magnifying effect by neutron diffraction on cylindrically bent perfect crystal (BPC) slab of Si in fully asymmetric diffraction (FAD) geometry
Pavol Mikula, Nuclear Physics Institute ASCR, v.v.i., Czech Republic

P2:22 Propagation of scintillation light in conventional optics
Marita Mosconi, ESS Bilbao, Spain

P2:23 A next-generation inverse geometry spallation-driven ultracold neutron source
Günter Muhrer, European Spallation Source ERIC, Sweden

P2:24 Nuclear inventory Helium coolant of the ESS target
Günter Muhrer, European Spallation Source ERIC, Sweden

P2:25 Recent issues of AMATERAS — a disk-chopper spectrometer at J-PARC
Kenji Nakajima, J-PARC Center, Japan

P2:26 Aspects of Tantalum
Chris Nelson, Rutherford Appleton Laboratory – Science and Technology Facilities Council, UK

P2:27 Tungsten erosion in helium – Experimental results from ETHEL
Per Nilsson, ESS, Sweden
P2:28 Current status of the ISIS robotic cryogenic sample changer  
Matt North, Science and Technology Facilities Council, UK

P2:29 10kN test rig for the SXD Diffractometer  
Matt North, Science and Technology Facilities Council, UK

P2:30 Development of a sample can for the robotic cryogenic sample changer at ISIS  
Jamie Nutter, Science and Technology Facilities Council, UK

P2.31 Sample environment hardware information system  
Jamie Nutter, Science and Technology Facilities Council, UK

P2.32 The source testing facility at Lund University - A cost-effective and highly-available source-based testbed for novel neutron detectors  
Hanno Perrey, Lund University, Sweden

P2.33 Liquid hydrogen for cold neutron production at European Spallation Source  
Jesper Ringner, European Spallation Source ERIC, Sweden

P2.34 Target safety system design for the ESS target station  
Ataefeh Sadeghzadeh, European Spallation Source ERIC, Sweden

P2.35 Neutronics calculation of the fast neutron background for the DREAM beamline at ESS  
Valentina Santoro, European Spallation Source ERIC, Sweden

P2.36 Source term for shielding design of beamlines at ESS  
Valentina Santoro, European Spallation Source ERIC, Sweden

P2.37 Status update of the ESS target wheel drive and shaft design  
Kristoffer Sjögreen, European Spallation Source ERIC, Sweden

P2.38 A tale of two foils - Upgrade of ISIS TS-1 water moderators  
Goran Skoro, ISIS Neutron and Muon Source / STFC, UK

P2.39 The gaseous discharges at ISIS and the activated air composition effect  
Goran Skoro, ISIS Neutron and Muon Source / STFC, UK

P2.40 Spallation material design for ESS 5 MW target  
Fernando Sordo Balbín, Consorcio ESS-BILBAO, Spain

P2.41 The ESS Monolith Vessel  
Fernando Sordo Balbín, Consorcio ESS-BILBAO, Spain

P2.42 MIRACLES: the future TOF backscattering spectrometer of ESS  
Fernando Sordo Balbín, Consorcio ESS-BILBAO, Spain

P2.43 Proton filter for sub-eV neutron spectroscopy on POLANO  
Kaoru Taketani, KEK, Japan
P2.44 ISIS TS1 project mock ups and testing
Stephanie Thomas, Science and Technology Facilities Council, UK

P2.45 Low temperature neutron optics and alignment systems - A feasibility study
Sascha Thuersam, PSI - Paul Scherrer Institute, Switzerland

P2.46 Challenges, analysis and design solutions for a bolted target support frame within a remote handling area
Owain Williams, Science & Technology Facilities Council, UK

P2.47 Imminent launch of POLANO
Tetsuya Yokoo, High Energy Accelerator Research Organization (KEK), Japan

P2.48 Development of an advanced automatic structure refinement tool for multi-point diffraction data using Z-Rietveld
Masao Yonemura, High Energy Accelerator Research Organization,

P2.49 High performance controls architecture for real-time non-boolean interlocks using PLCs for ESS Target system
Manuel Zaera Sanz, European Spallation Source ERIC, Sweden

P2.50 Conceptual design of a standard T0 chopper for neutron scattering instruments at long pulse spallation sources
Dariusz Zielinski, European Spallation Source, Sweden