

The 5th International Meeting of Union for Compact Accelerator-driven Neutron Sources

May 12-15, 2015

Padova and Laboratori Nazionali di Legnaro (Padova), Italy

SCIENTIFIC PROGRAM

Tuesday		12 May 2015
15:00	15:30	REGISTRATION
15:30	15:45	Welcome address
		Opening Session Chair: D. Bisello
15:45	16:15	R. McGreevy, ISIS May 2015: current status and future plans (talk delivered by C. Andreani)
16:15	16:45	T. Ino, KEK activity on J-PARC neutron facility and compact neutron sources
16:45	17:15	F. Mezei, European Spallation Source ESS: principles, status, perspectives
17:15	19:15	Welcome Cocktail
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Wedn	esday	13 May 2015
8:30	9:00	bus transport Padova-LNL
9:00	9:50	REGISTRATION
9:50	10:05	Welcome
		Session NUCLEAR ASTROPHYSICS and NUCLEAR DATA Chair: P. Schillebeeckx
10:05	10:35	F. Käppeler, Astrophysical quests for neutron capture data of unstable nuclei
10:35	10:55	C. Beinrucker, Neutron-capture Cross-section of 69,71Ga and 63,65Cu at 25 and 90 keV
10:55	11:25	Coffee break
11:25	11:45	W. Mondelaers, Fostering European Collaborations: EUFRAT and work done at JRC-IRMM
11:45		P. Schillebeeckx, Characterization of nuclear material by neutron resonance transmission analysis
12:05	12:25	Y. Ikeda, Measurement of neutron diffraction with compact neutron source RANS
12:25		R. Granada, Measurement of the total cross section of heavy water in the 0.1 meV - 1 eV energy range at 20 and 50 $^{\circ}$ C
12:45	13:05	C. Massimi, Experimental program on Nuclear Astrophysics at the CERN n_TOF facility
13:05	13:25	G. Martin Hernandez, BELINA – Beam Line for Nuclear Astrophysics at LNL
13:25	13:45	M. Costa, Neutron sources based on medical Linac
13:45	14:45	Lunch
		Session NEUTRON DETECTION Chair: G. Gorini
14:45	15:05	M. Rebai, A single-crystal Diamond Detector Matrix for DT plasma diagnostic
15:05	15:25	Y. Yang, The research of large area neutron sensitive MCP at Tsinghua University
		Session MEDICAL APPLICATIONS Chair: Y. Kiyanagi
15:25	15:45	I. Porras, Monte Carlo Simulation of Accelerator-Based Epithermal Neutron Beams for Neutron Capture Therapy
15:45	16:05	I. Postuma, BNCT neutron beam from accelerator
16:05	16:25	T. Nakamoto, Development of a linac-based neutron source for BNCT with beryllium three- layer neutron target system

16:25	16:40	Coffee break
16:40	17:55	POSTER SESSION*
17:55	19:25	LNL visit
19:25	19:55	Bus LNL-Padova
20:15		Programme Committee Dinner

Thursday		14 May 2015	
8:30	9:00	bus transport Padova-LNL	
		Session NEUTRON SOURCE FACILITIES Chair: M. Furusaka	
9:00	9:20	G. Prete, The SPES project at LNL	
9:20	9:50	T. Brueckel, The Helmholtz Neutron Strategy: Towards a High Brilliance Neutron Source	
9:50	10:10	F. Sordo, ESS-BILBAO: On going activities	
10:10	10:30	J. Wyss, NEPIR: A neutron irradiation facility at the SPES high intensity 70 MeV Cyclotron of LNL	
10:30	11:00	Coffee break	
11:00	11:20	F. Villa, Multipurpose applications of the accelerator-based neutron source GENEPI2	
11:20	11:40	B. Bromberger, Development of a compact, intense and ns-pulsed neutron source for the application in fast neutron radiography and tomography	
11:40	12:00	D. Baxter, The LENS facility in 2015	
12:00	12:20	V. Shvetsov, Intense Resonance Neutron Source at JINR: Status and Perspectives	
12:20	12:40	Y. Otake, RIKEN accelerator-driven compact neutron source RANS	
12:40	13:00	Y. Kiyanagi, Recent activity of Japan Collaboration of Accelerator driven Neutron Sources (JCANS)	
13:00	13:20	M. Furusaka, Current Status of the Hokkaido University Neutron Source (HUNS)	
13:20	14:20	Lunch	
14:20	14:40	S. Mattiazzo, LNL irradiation facilities for radiation damage studies	
		Session MODERATOR NEUTRONICS Chair: D. Baxter	
14:40	15:00	K. Batkov, Design of neutron moderators for ESS	
15:00	15:20	to be defined	
15:20	15:40	T. Cronert, High Brilliant Neutron Source - Juelich	
15:40	16:10	Coffee break	
16:10	16:30	K. Thomsen, Moderator Studies on Simple Geometries	
16:30	16:50	R. Granada, Analysis of the premoderator temperature effect on the Moderator Brightness of a simple TMR model system	
16:50	17:10	C. Franklyn, Development of compound neutron moderator structures for small accelerator based neutron source	
17:10	17:30	A. Alejo, High power laser driven neutron source and application	
17:30		bus transport LNL-Padova	
19:30		Social Dinner	

Friday		15 May 2015	
8:30	9:00	bus transport Padova-LNL	
		Session HIGH POWER TARGET Chair: F. Sordo	
9:00	9:20	A. Andrighetto, The SPES High Power ISOL production target	
9:20	9:40	L. Silvestrin, ANEM: a rotating composite neutron production target for Single Event Effects Studies at the 70 MeV Cyclotron of LNL-INFN	
9:40	10:00	P. Mastinu, The high power target for LENOS Project at Laboratori Nazionali di Legnaro o INFN-LNL	
10:00	10:20	I. Silverman, Target choice for SARAF thermal neutron source	
10:20	10:40	K. Zhu, Experiment and Simulation of plasma window	
10:40	11:10	Coffee break	
		Session ACCELERATORS AND BEAM OPTICS Chair: X. Wang	
11:10	11:30	A. Pisent, MUNES project: an intense Multidisciplinar Neutron Source for BNCT and other applications based on a high intensity RFQ accelerator	
11:30	11:50	O. Hinrichs, Simulations of the high energy beam transport section (HEBT) at FRANZ	
11:50	12:10	F. Mezei, Beam extraction and delivery at compact neutron sources	
12:10	12:30	N. Chauvin, High intensity beams activities at CEA/Saclay	
12:30	12:50	X. Wang, Commissioning of the 3-MeV proton and neutron beam lines at CPHS: A status report on accelerator and neutron activities at Tsinghua University	
		Session COMPUTER SIMULATIONS Chair: X. Wang	
12:50	13:10	J. Lerendegui, Geant4 Simulation of the n_TOF Spallation Target	
13:10	14:10	Lunch	
		Session CLOSURE Chair CK. Loong	
14:10	14:30	J. Carpenter, Historical overview	
14:30		CK. Loong, The Union for Compact Accelerator-driven Neutron Sources: Past, Present, and Prospects	
14:50	16:20	DISCUSSION: Future of CANS	
16:20		bus transport LNL-Padova	

*POSTER SESSION

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ALBANI, Giorgia	A 3D-cathode GEM-based thermal neutrons detector for spallation neutron sources
DABRUCK, Jan Philipp	HBS - A High Brilliant Neutron Source
MIRFAYZI, Seyed Reza	Imaging of static objects using laser-driven neutron source
ALEJO, Aaron	Fast-Neutron Generation by Laser-Driven Deuterium Ions from Ultrathin Targets
BAXTER, David	Radiation Effects Research at LENS
SATOH, Setsuo	Development of a New Exclusive Function with a Center-of- Gravity Calculation for the 2012
TSUCHIDA, Kazuki	Construction of an accelerator-driven compact neutron source for BNCT in Nagoya Univeristy
WANG, Sheng	Shielding design of RIKEN Accelerator-driven Neutron Source (RANS) and brief introduction of
KAMIYAMA, Takashi	Convertible Source System of Thermal neutron and X-ray at Hokkaido University Electron Linac
SANO Tadafumi	Improvement of Neutron Source for the Development of Non-destructive Methods Adapted
JOASSIN, Denis	Upgrade of the IBA dynamitron as a high-intensity proton accelerator
SORDO, Fernando	The ESS Helium Cooled Target