

22nd ASRC International Workshop
“Nuclear Fission and Exotic Nuclei”

Advanced Science Research Center (ASRC), Japan Atomic Energy Agency (JAEA), Tokai, Japan
 3rd - 5th December (2014)

3rd December (Wednesday)

8:40 – 9:20	Registration	
9:20 – 9:30	Katsuhisa Nishio Yuichiro Nagame, Vice Director General of ASRC (10)	Opening Welcome
Chair : Andrei Andreyev, University of York / JAEA		
9:30 – 9:55	Audrey Chatillon (25) CEA	SOFIA: Measurement of the fission fragments yields in inverse kinematics at relativistic energies. First results for fissioning nuclei from ¹⁸³ Hg up to ²³⁸ Np
9:55 – 10:20	Taka Kajino (25) NAO, Univ of Tokyo	Critical roles of fission in the r-process nucleosynthesis in binary neutron-star mergers and Galactic evolution
10:20 – 10:40	Katsuhisa Nishio (20) JAEA	Future program at the J-PARC facility
Coffee break (10:40 – 11:00)		
Chair : Franz-Josef Hamsch, IRMM		
11:00 – 11:20	Heikki Penttilä (20) University of Jyväskylä	Independent fission yield measurements with JYFLTRAP
11:20 – 11:40	Romain Léguillon (20) JAEA	Fission study of actinide nuclei using multi-nucleon transfer reaction at the JAEA tandem facility
11:40 – 12:00	Satoshi Chiba (20) Tokyo Institute of Technology	Calculation of fission fragment mass distributions for actinide nuclei with Langevin approach
Lunch (12:00 -13:30)		
Chair : Akira Iwamoto, JAEA		
13:30 – 13:55	Kouichi Hagino (25) Tohoku University	Heavy-ion fusion and quasi-elastic around the Coulomb barrier
13:55 – 14:20	Diego Ramos (25) University of Santiago de Compostela	Isotopic fragment distribution of minor actinides produced in ²³⁸ U transfer reactions
14:20 – 14:40	Takahiro Wada (20) Kansai University	Fission fragment mass distribution of Fm Isotopes
14:40 – 15:00	Fedir Ivaniuk (20) Institute of Nuclear Research, Kiev	The scission-point configuration of fissioning nuclei
Coffee break (15:00 – 15:20)		
Chair : Hiroshi Ikezoe, JAEA		
15:20 – 15:45	Franz-Josef Hamsch (25) IRMM	Prompt neutron and gamma-ray measurement program at IRMM
15:45 – 16:05	Alexander Andreev (20) BLTP, JINR	Mass distributions of fission fragments of different Hg isotopes and ¹⁹⁶ Po
16:05 – 16:25	Guillaume Scamps (20) Tohoku University	Microscopic description of fission dynamic, effect of pairing in the ²⁵⁸ Fm fission modes
16:25 – 16:45	Martin Veselsky (20) Slovak Academy of Science	Transfer-induced fission of neutron-deficient nuclei
Coffee break (16:45 – 17:10)		

Chair : Tsutomu Ohtsuki, Kyoto University		
17:10 – 17:30	Masaaki Sasano (20) RIKEN	Status of the development of the setup for the fission barrier determination via the (p,2p) reaction in inverse kinematics
17:30 – 17:50	Dennis Muecher (20) RIKEN	Study of fission barriers in neutron-rich nuclei using the (p,2p) reaction: Status of SAMURAI-Experiment NP1306 SAMURAI
17:50 – 18:10	James Smallcombe (20) JAEA	Induced fission studies of $Z < 82$ nuclei at the JAEA tandem facility
Dinner at 'Uoyasu', Fish Restaurant in Tokai (18:30 -)		

4th December (Thursday)

Chair : Yutaka Utsuno, JAEA		
9:00 – 9:25	Sven Aberg (25) Lund University	A microscopic description of alpha-decay in heavy and super-heavy nuclei
9:25 – 9:50	Fritz Peter Hessberger (25) GSI	Nuclear structure of superheavy nuclei investigated at GSI-SHIP
9:50 – 10:10	Yoshihiro Aritomo (20) Tokyo Institute of Technology	Fission properties of actinide and trans-Bk nuclei with Langevin approach
Coffee break (10:10 – 10:30)		
Chair : Sigurd Hofmann, GSI		
10:30 – 10:55	Luis Sarmiento (25) Lund University	Nuclear spectroscopy with Geant4: Element 115 results
10:55 – 11:15	Futoshi Minato (20) JAEA	Sensitivity analysis of delayed neutron with JENDL/FPD-2011 and JENDL/FPY-2011
11:15 – 11:35	Alexander Svirikhin (20) FLNR, JINR	The neutron multiplicity study at spontaneous fission of short-lived isotopes ($z > 100$) using VASSILISSA recoil separator
11:35 – 11:55	Timur Shneidman (20) BLTP, JINR	Level densities and shell corrections of heaviest nuclei
Workshop Photo & Lunch (11:55 -13:00)		
J-PARC Tour (13:00 – 14:00)		
Coffee break (14:00 – 14:15)		
14:15 – 14:25	Chair : Sven Aberg, Lund University (10)	
14:25 – 14:55	Sigurd Hofmann (30) GSI	With SHIP through Reefs and Shoals
14:55 – 15:25	Hiroyuki Sagawa (30) University of Aizu	FRDM mass model and EoS
15:25 – 15:55	Jorgen Randrup (30) LBNL	Adventures with Peter through time and space
Coffee break (15:55 – 16:15)		
Chair : Krzysztof Rykaczewski, ORNL		
16:15 – 16:45	Karl-Ludwig Kratz (30) University of Mainz	Thirty years of collaboration with Peter Möller: from RPA (1984) to FRDM & QRPA (today)
16:45 – 17:15	Akira Iwamoto (30) JAEA	Two decades of collaboration with Peter Möller

17:15 – 17:30	Arnie Sierk (15) LANL	Forty-Two years with Peter Möller
17:30 – 18:05	Peter Möller (35) LANL	Earlier life and recent results
Workshop Banquet (18:30 – 21:30)		

5th December (Friday)

Chair : Hiroyuki Koura, JAEA		
9:20 – 9:45	Emanuele Vardaci (25) INFN/Univ. Napoli	Is nuclear viscosity dependent on temperature? New clues on fission dynamics from systems of intermediate fissility
9:45 – 10:10	Kai Wen (25) Tsukuba University	A Study on fluctuation-dissipation dynamics in nuclear fusion reactions
10:10 – 10:30	Kouhei Washiyama (20) RIKEN	Microscopic description of extra-push energy and fusion dynamics in heavy systems
(10:30 - 10:50) Coffee break		
Chair : Kouichi Hagino, Tohoku University		
10:50 – 11:15	Takatoshi Ichikawa (25) YITP, Kyoto University	Damping of quantum vibrations revealed in deep sub-barrier fusion
11:15 – 11:35	Riccardo Orlandi (20) JAEA	Transfer reaction studies near neutron-rich doubly-magic nuclei ^{78}Ni and ^{132}Sn
11:35 – 11:55	Mamiko Nishiuchi (20) JAEA	Multi-charged heavy ion acceleration by the high intensity short-pulse laser system
(11:55 - 13:15) Lunch		
Chair : Takashi Nakatsukasa, Tsukuba University		
13:15 – 13:40	Robert Grzywacz (25) Univ. Tennessee / ORNL	Gamow-Teller decays of nuclei beyond $N > 50$
13:40 – 14:05	Eryk Piasecki (25) Warsaw University	Weak channels and barrier distributions
14:05 – 14:25	Sezgin Aydin (20) Aksaray University	The investigation of the high-spin states in ^{35}S by in-beam gamma-ray spectroscopy
(14:25 – 14:45) Coffee Break		
Chair : Karl-Ludwig Kratz, University of Mainz		
14:45 – 15:05	Krzysztof Starosta (20) Simon Fraser University	Infrastructure for spontaneous and neutron-induced fission at Simon Fraser University
15:05 – 15:30	Giacomo de Angelis (25) Legnaro National Laboratory	The SPES RIB facility of INFN. Status and perspectives
15:30 – 15:55	Krzysztof Rykaczewski (25) ORNL	Beta-strength, decay heat and anti-neutrino spectra from Total Absorption Spectroscopy
15:55 – 16:15	Zhiyuan Zhang (20) IMP	Heavy nuclei research at Lanzhou gas-filled separator SHANS
16:15 – 16:20	Andrei Andreyev (5), University of York / JAEA, Closing	
Tandem Tour (16:30 – 17:10)		