

Nucleus Nucleus 2015

Sunday 21 June 2015 - Friday 26 June 2015

Dipartimento di Fisica ed Astronomia, Università di Catania

Programme

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Monday 22 June 2015

Welcome - Aula Magna (22 June 08:15-08:45)

- Conveners: Spitaleri, Claudio (INFN-LNS and Università di Catania, Italy)

Keynote Talk - Aula Magna (22 June 08:45-09:15)

- Conveners: Nappi, Eugenio (INFN-Sezione di Bari, Italy)

time	title	presenter
08:45	Keynote Talk (00h30')	BRACCO, Angela (INFN and University of Milano, Italy)

Heavy and Superheavy Elements - Aula Magna (22 June 09:15-11:15)

- Conveners: Pagano, Angelo (INFN-Sezione di Catania, Italy)

time	title	presenter
09:15	Alpha-Photon Decay Spectroscopy of Element 115 (00h30')	RUDOLPH, Dirk (Lund University, Sweden)
09:45	Inverse quasi-fission phenomena in heavy ion collisions (00h30')	KOZULIN, EDUARD (Flerov Laboratory of Nuclear Reactions, JINR, Dubna, Russia)
10:15	Nuclear Structure Studies of the Heaviest Elements by High-Precision Mass Measurements (00h30')	BLOCK, Michael (GSI, Darmstadt, Germany)
10:45	SHE at RIKEN (00h30')	MORITA, K. (RIKEN, Japan)

Coffee Break - Main Hall (11:15-11:45)

QCD and Hadron Physics - Aula Magna (22 June 11:45-13:45)

- Conveners: Auerbach, Naftali (Tel Aviv University, Israel)

time	title	presenter
11:45	Intermediate energy nuclear reactions (00h30')	SHYAM, Radhey (Saha Institute of Nuclear Physics, Kolkata, India)
12:15	Experimental Highlights on QCD Medium Properties at RHIC (00h30')	NOUICER, Rachid (Brookhaven National Laboratory, Upton, USA)
12:45	Light Nuclei and Hypernuclei from Lattice QCD (00h30')	PARRENO, A. (Universitat de Barcelona, Spain)
13:15	Chiral nucleon-nucleon forces in nuclear structure calculations (00h30')	CORAGGIO, Luigi (INFN-Napoli, Italy)

Lunch - INFN-LNS, GuestHouse (13:45-15:15)

Heavy and Superheavy Elements - INFN-LNS, Aula 52 (22 June 15:15-17:35)

- Conveners: Hagino, Kouichi (Tohoku University, Japan)

time	title	presenter
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15:15	A novel approach to the super-heavy elements search (00h25')	WIELOCH, Andrzej (Institute of Physics Jagiellonian University, Krakow, Poland)
15:40	Dynamics of fusion, fission, and quasifission (00h25')	UMAR, Sait (Vanderbilt University, Nashville, USA)
16:05	Masses, Fission, and β -decay for Astrophysics and SHE (00h25')	MOLLER, P (Los Alamos National Laboratory, USA)
16:30	Search for new superheavy elements with Z=119 and Z=120 at the gas-filled recoil separator TASCA at GSI Darmstadt (00h25')	DÜLLMANN, Christoph (Johannes Gutenberg University Mainz, Germany)
16:55	Recent experiments in inverse kinematics with the magnetic spectrometer PRISMA (00h20')	FIORETTO, Enrico (INFN-LNL, Legnaro, Italy)
17:15	Exploration of Nuclear Structure and Decay Properties of Heaviest Elements at SHIP - GSI (00h20')	HEßBERGER, Fritz Peter (GSI, Darmstadt, Germany)

QCD and Hadron Physics - Aula A (22 June 15:15-17:25)

- **Conveners: Calvo, Daniela (INFN-Sezione di Torino, Italy)**

time	title	presenter
15:15	New results in lattice scattering using the adiabatic projection method (00h25')	LEE, Dean (North Carolina State University, USA)
15:40	Emission of neutrino-antineutrino pairs by hadronic bremsstrahlung processes (00h25')	BACCA, Sonia (TRIUMF, Vancouver, Canada)
16:05	PERSPECTIVE STUDY OF EXOTICS AND BARYONS WITH CHARM AND STRANGENESS (00h20')	BARABANOV, Mikhail (Joint Institute for Nuclear Research, Dubna, Russia)
16:25	Elastic nucleon-deuteron scattering and breakup with standard and chiral forces (00h20')	WITALA, Henryk (Jagiellonian University, Poland)
16:45	Hermes results on 3D imaging of the nucleon (00h20')	PAPPALARDO, Luciano Libero (Universita' degli Studi di Ferrara, Italy)
17:05	Search for $4\text{He}-\eta$ bound states in $dd \rightarrow 3\text{He}p\pi^-$ and $dd \rightarrow 3\text{He}n\pi^0$ reactions with the WASA-at-COSY facility (00h20')	SKURZOK, Magdalena (Jagiellonian University, Krakow, Poland)

Relativistic Heavy-Ion Collisions - Aula F (22 June 15:15-17:00)

- **Conveners: Feliciello, Alessandro (INFN-Sezione di Torino, Italy)**

time	title	presenter
15:15	(anti)hypernuclei and 3H lifetime puzzle (00h25')	MA, Yu-Gang (Shanghai Institute of Applied Physics, CAS, China)
15:40	Open heavy-flavour measurements with ALICE at the LHC (00h20')	BASTID, Nicole (LPC Clermont-Ferrand, Aubiere, France)
16:00	Jet fragmentation study with particle correlation from the ALICE experiment at LHC (00h20')	KIM, Dong Jo (Jyvasklya University)
16:20	Recent results from NA61/SHINE (00h20')	KOWALSKI, Seweryn (University of Silesia, Katowice, Poland)

16:40	Quark coalescence from RHIC to LHC (00h20')	MINISSALE, Vincenzo (University of Catania / INFN-LNS, Italy)
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Nuclear Structure - Aula Magna (22 June 15:15-17:20)

- **Conveners: Miljanic, Djuro (Rudjer Boskovic Institute, Zagreb, Croatia)**

time	title	presenter
15:15	Electric Dipole Response of Nuclei and the Symmetry Energy of the Nuclear Equation of State (00h25')	TAMII, Atsushi (Research Center for Nuclear Physics, Osaka University, Ibaraki, Japan)
15:40	Does monopole pigmy resonance exist in ^{68}Ni ? (00h20')	SAGAWA, Hiroyuki (RIKEN/University of Aizu, Japan)
16:00	Probing the Structure of the Unbound Nuclei ^9He and ^{10}N Through Proton Elastic Scattering (00h20')	UBERSEDER, Ethan (Texas A University, Usa)
16:20	Collectivity beyond N=40 in neutron-rich Cr and Fe isotopes. (00h20')	SANTAMARIA, Clementine (CEA Saclay, France)
16:40	Interplay between proton-neutron pairing and deformation in N=Z medium mass nuclei (00h20')	GAMBACURTA, Danilo (INFN-Sezione di Catania, Italy)
17:00	First experimental indication of the Giant Pairing Vibration in the ^{14}C and ^{15}C nuclei (00h20')	CARBONE, Diana (INFN-LNS, Catania, Italy)

Reactions and Structure - Unstable Nuclei - INFN-LNS, Aula Azzurra (22 June 15:15-17:25)

- **Conveners: Hussein, Mahir (University of Sao Paulo, Brasil)**

time	title	presenter
15:15	Probing nucleon-nucleon correlations in heavy ion transfer reactions (00h25')	SZILNER, Suzana (Ruder Boskovic Institute, Zagreb, Croatia)
15:40	Evidence for a four-body state in ^9Be through the $^8\text{Li}(p,d)^7\text{Li}$ reaction (00h25')	LÉPINE-SZILY, Alinka (Universidade de Sao Paulo, Brazil)
16:05	Effects of couplings to breakup channels in reactions induced by weakly bound and halo nuclei. (00h20')	FERNANDEZ GARCIA, Juan Pablo (INFN-LNS, Catania, Italy)
16:25	Exploring the ^{10}Li structure by the $d(^9\text{Li},p)^{10}\text{Li}$ transfer reaction (00h20')	CAVALLARO, Manuela (INFN-LNS, Catania, Italy)
16:45	Production cross section measurement and identification of new isotopes in the vicinity of ^{100}Sn (00h20')	LEWITOWICZ, Marek (GANIL, France) CELIKOVIC, Igor (Institute of Nuclear sciences "Vinca", Belgrade, Serbia)
17:05	Three-body model study of unbound nucleus ^{26}O (00h20')	SAGAWA, Hiroyuki (RIKEN/University of Aizu, Saitama, Japan)

Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions - INFN-LNS, Sala conferenze (22 June 15:15-17:25)

- **Conveners: Danielewicz, Pawel (Michigan State University, USA)**

time	title	presenter
15:15	Excited nuclear matter at Fermi energies: from transport properties to the equation of state (00h25')	LOPEZ, O. (Laboratoire de Physique Corpusculaire de Caen, France)
15:40	The role of the symmetry energy on Pygmy Dipole Resonance dynamics: from schematic models to transport approaches (00h25')	BARAN, Virgil V. ("Horia Hulubei" National Institute of Physics and Nuclear Engineering, Bucharest-Magurele, Romania)
16:05	Alpha-particle clustering in excited expanding self-conjugate nuclei (00h20')	BORDERIE, Bernard (Institut de Physique Nucléaire, France)
16:25	In-medium and isospin effects of strange particles in heavy-ion (00h20')	FENG, Zhaoqing (Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou, China)
16:45	Influence of Skyrme-type Momentum Dependent Interaction on HICs Observables (00h20')	ZHANG, Yingxun (China Institute of Atomic Energy, Beijing, China)
17:05	Study of two and multi particle correlations in $^{12}\text{C}+^{24}\text{Mg}$ and $^{12}\text{C}+^{208}\text{Pb}$ reactions at $E/A=35$ MeV (00h20')	QUATTROCCHI, Lucia (INFN & University of Messina, Italy)

Coffee Break - Main Hall (17:35-18:00)

Poster Session - Main Hall (22 June 18:00-20:00)

Tuesday 23 June 2015

Relativistic Heavy-Ion Collisions - Aula Magna (23 June 08:30-10:30)

- **Conveners:** Cifarelli, Luisa (INFN - Sez. di Bologna e Univ. di Bologna, Italy)

time	title	presenter
08:30	Studying the Quark-Gluon Plasma in Nuclear Collisions at the LHC (00h30')	STACHEL, Johanna (Universitaet Heidelberg, Germany)
09:00	Collective dynamics, fluctuations and instabilities in Relativistic Heavy Ion collisions (00h30')	CSERNAI, Laszlo (University of Bergen, Norway)
09:30	Understanding properties of the Quark Gluon Plasma (QGP) on the basis of correlation and fluctuation measurements at RHIC and the LHC (00h30')	BELLWIED, Rene (University of Houston, Houston, USA)
10:00	Hadron formation in relativistic nuclear collisions and the QCD phase diagram (00h30')	BECATTINI, Francesco (Università di Firenze, Italy)

Coffee Break - Main Hall (10:30-11:00)

Nuclear Structure - Aula Magna (23 June 11:00-13:00)

- **Conveners:** Nazarewicz, Witold (Michigan State University/FRIB, USA)

time	title	presenter
11:00	Shape phase transitions far from stability (00h30')	VRETENAR, Dario (University of Zagreb, Croatia)
11:30	Time-dependent Hartree-Fock calculations for multinucleon transfer and quasi-fission processes (00h30')	YABANA, Kazuhiro (Center for Computational Sciences, University of Tsukuba, Japan)
12:00	Interplay between collective and single particle excitations around neutron-rich doubly-magic nuclei (00h30')	LEONI, Silvia (University of Milano and INFN, Italy)
12:30	Heavy ion charge exchange reactions (00h30')	UESAKA, Tomohiro (RIKEN Nishina Center, Saitama, Japan)

Lunch - INFN-LNS, GuestHouse (13:00-14:30)

Nuclear Energy and Applications of Nuclear Science and Technologies - INFN-LNS, Aula 52 (23 June 14:30-16:45)

- **Conveners:** Trache, Livius (IFIN-HH Bucharest, Romania)

time	title	presenter
14:30	The Muon Portal Project: A large area tracking detector for muon tomography (00h25')	RIGGI, Francesco (University of Catania, Italy)
14:55	A Compton camera prototype for prompt-gamma medical imaging (00h25')	THIROLF, Peter (Ludwig-Maximilians-University Munich, Garching, Germany)
15:20	Laser-based Acceleration for Nuclear Physics experiments at ELI-NP (00h25')	TESILEANU, Ovidiu (ELI-NP, IFIN-HH, Magurele, Romania)
15:45	Measurements of secondary particle production induced by particle therapy ion beams impinging on a PMMA phantom (00h20')	TOPPI, Marco (INFN-Roma, Italy)

16:05	Study of Spatial Resolution and Muon Tomographic Imaging Properties of Glass RPCs (00h20')	LI, Qite (School of Physics, Peking University, Beijing, China)
16:25	Nuclear Reactions on Copper Induced by Cosmic Protons (00h20')	CHUVILSKAYA, Tatjana (SINP MSU, Moscow, Russia)

Relativistic Heavy-Ion Collisions - Aula F (23 June 14:30-16:40)

- **Conveners: MA, Yu-Gang (Shanghai Institute of Applied Physics, CAS, China)**

time	title	presenter
14:30	J/PSI production in HI collisions and related items (00h25')	ARNALDI, Roberta (INFN Torino, Italy)
14:55	Anisotropic flows and the shear viscosity of the QGP within an event by event transport approach (00h25')	PLUMARI, Salvatore (INFN-LNS, Catania, Italy)
15:20	Overview of azimuthal correlation measurements from ALICE (00h20')	ZHOU, You (Niels Bohr Institute, Copenhagen, Denmark)
15:40	MCNP6 Simulation of Light and Medium Nuclei Fragmentation at Intermediate Energies (00h20')	MASHNIK, Stepan (Los Alamos National Laboratory, USA)
16:00	Thermalization, equilibration and particle production in quark-gluon plasma (00h20')	RUGGIERI, Marco (Catania University, Italy)
16:20	Understanding the path length dependence of jet quenching in Heavy Ion Collisions from RHIC to LHC (00h20')	SONG, Myunggeun (Yonsei University, Seoul, Republic of Korea)

Nuclear Structure - Aula Magna (23 June 14:30-16:35)

- **Conveners: Cao, Ligang (North China Electric Power University, Beijing, China)**

time	title	presenter
14:30	Electromagnetic and neutral-weak response functions of ^4He and ^{12}C (00h25')	LOVATO, Alessandro (Argonne National Laboratory, IL, USA)
14:55	Theoretical studies of possible toroidal high-spin isomers in the light-mass region (00h20')	STASZCZAK, Andrzej (Maria Curie-Skłodowska University, Lublin, Poland)
15:15	g-factor Measurements for Isomeric States in ^{174}W (00h20')	ROCCHINI, Marco (INFN-Sezione di Firenze, Italy)
15:35	Spatial properties of pairing and quarteting correlations in nuclei (00h20')	DELION, D. (Horia Hulubei National Institute of Physics and Nuclear Engineering, Bucharest-Magurele, Romania)
15:55	Excited sidebands calculated with Hatree-Fock method with PNC pairing (00h20')	LIANG, Wuyang (Peking University, China)
16:15	High-spin states in ^{50}Y and ^{91}Nb nuclei: Probing π fp- ν dg effective interaction (00h20')	SINGH, Purnima (Tata Institute of Fundamental Research, Mumbai, India)

Reactions and Structure - Unstable Nuclei - INFN-LNS, Aula Azzurra (23 June 14:30-16:40)

- **Conveners: G. Borge, Maria J (ISOLDE-CERN)**

time	title	presenter
14:30	Stable and radioactive ION beam studies at ALTO facility (00h25')	AZAIEZ, Faical (IPN-ORSAY/IN2P3, France)
14:55	Scattering process for the system ${}^7\text{Be}+{}^{208}\text{Pb}$ at near-barrier energies (00h25')	MAZZOCCO, Marco (University of Padova, Italy)
15:20	New evidence of soft dipole resonance in ${}^{11}\text{Li}$ (00h20')	KANUNGO, Rituparna (Saint Mary's University)
15:40	Unified studies of structures and reaction in two-center systems (00h20')	ITO, Makoto (Kansai University, Osaka, Japan)
16:00	Evaluation of inelastic breakup in reactions induced by weakly-bound nuclei within a three-body model (00h20')	JIN, Lei (Universidad de Sevilla, Spain)
16:20	Measuring fusion excitation functions with RIBs using the stacked target technique: problems and possible solutions (00h20')	FISICHELLA, Maria (INFN-LNS, Catania, Italy)

Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions - INFN-LNS, Sala Conferenze (23 June 14:30-16:40)

- Conveners: Natowitz, Joe (Cyclotron Institute, Texas A & M University, USA)

time	title	presenter
14:30	Dynamical description of heavy-ion collisions at Fermi energies (00h25')	NAPOLITANI, Paolo (IPN Orsay, France)
14:55	Nuclear matter under extreme conditions and finite nuclei with finite range simple effective interaction (00h25')	ROUTRAY, Tusar Ranjan (Sambalpur University, India)
15:20	Sensitivity of N/Z ratio to dynamical fission of quasi-projectile in isobaric systems (00h20')	DE FILIPPO, Enrico (INFN-Sezione di Catania, Italy)
15:40	From Femtonova to Supernova: Heavy Ion Collisions and the Supernova Equation of State (00h20')	HAGEL, Kris (Cyclotron Institute, Texas A & M University, USA)
16:00	Exploring clustering in alpha-conjugate nuclei using the thick target inverse kinematic technique for multiple alpha emission (00h20')	BARBUI, Marina (Cyclotron Institute, TAMU, USA)
16:20	Neutron rich Lambda hypernuclei study with the FINUDA experiment (00h20')	BUFALINO, Stefania (TO)

Fusion and Fission - Aula A (23 June 14:30-16:35)

- Conveners: Zhang, H.Q.

time	title	presenter
14:30	Low-energy fission and beta-delayed fission with radioactive beams (00h25')	ANDREYEV, Andrei (University of York, UK)
14:55	Sub-barrier fusion and transfers in the ${}^{40}\text{Ca}+{}^{58,64}\text{Ni}$ systems (00h20')	COURTIN, Sandrine (IPHC Strasbourg, France)
15:15	Dynamical Dipole Mode in the ${}^{40,48}\text{Ca}+{}^{152,144}\text{Sm}$ fusion-evaporation and fission reactions at 11 MeV/nucleon (00h20')	PARASCANDOLO, Concetta (INFN - Napoli, Italy) PIERROUTSAKOU, Dimitra (INFN - Napoli, Italy)
15:35	Microscopic description of fission using dynamical theories (00h20')	SCAMPS, Guillaume (Tohoku University, Sendai, Japan)

15:55	Isospin influence on the decay modes of systems produced in the $78,86\text{Kr}+40,48\text{Ca}$ at 10AMeV (00h20')	GNOFFO, Brunilde (INFN-Sezione di Catania, Italy)
16:15	Dissipative effects in fission investigated with proton-on-lead reactions (00h20')	RODRIGUEZ SANCHEZ, Jose Luis (University of Santiago de Compostela, Spain)

Coffee Break - Main Hall (16:45-17:00)

Relativistic Heavy-Ion Collisions - Aula F (23 June 17:00-19:10)

- Conveners: Saito, Takehiko (GSI, Germany)

time	title	presenter
17:00	Upsilon suppression in PbPb collisions at the LHC (00h25')	WOLSCHIN, Georg (Heidelberg University, Germany)
17:25	An Overview of Resonance Measurements at the ALICE Experiment (00h25')	KNOSPE, Anders (The University of Texas at Austin, Bozeman, USA)
17:50	Shear Viscosity to electric conductivity ratio for the Quark-Gluon Plasma (00h20')	PUGLISI, Armando (INFN-LNS, Catania, Italy)
18:10	Analysis of angular distribution of fragments in relativistic heavy-ion collisions by quantum molecular dynamics (00h20')	OGAWA, Tatsuhiko (Japan Atomic Energy Agency, Ibaraki Tokai, Japan)
18:30	Overview of jet physics with ALICE at the LHC (00h20')	WANG, Mengliang (SUBATECH, Nantes, France)
18:50	Light flavour hadron production in the ALICE experiment at LHC (00h20')	BADALA', Angela (INFN-Sezione di Catania, Italy)

Nuclear Structure - Aula Magna (23 June 17:00-19:10)

- Conveners: Catara, Francesco (INFN and Univ. of Catania, Italy)

time	title	presenter
17:00	Particle emission at the proton drip-line (00h25')	PFUTZNER, Marek (University of Warsaw, Poland)
17:25	Nuclear structure studies of neutron-rich nuclei with large gamma-ray spectrometers. (00h25')	VALIENTE DOBON, Jose' Javier (INFN-LNL, Legnaro, Italy)
17:50	EXTRACTING THE HEXADECAPOLE PARAMETERS FROM BACKWARD QUASI-ELASTIC SCATTERING (00h20')	ZHANG, Huanqiao (China Institute of Atomic Energy, Beijing, China)
18:10	Low-lying $1^{\pi-}$ and $2^{\pi+}$ states in ^{124}Sn via inelastic scattering of ^{17}O (00h20')	PELLEGGRI, Luna (University of the Witwatersrand and iThemba LABS)
18:30	$16\text{O} + 16\text{O}$ molecular structures of positive- and negative-parity superdeformed bands in ^{34}S (00h20')	TANIGUCHI, Yasutaka (Nihon Institute of Medical Science, Japan)
18:50	Ab-initio calculation of nuclear structure with many-body perturbation theory (00h20')	XU, Furong (State Key Laboratory of Nuclear Physics and Technology, School of Physics, Peking University, Beijing, China)

Reactions and Structure - Unstable Nuclei - INFN-LNS, Aula Azzurra (23 June 17:00-18:50)

- Conveners: Ferreira, Lidia (CFIF/IST- Lisbon, Portugal)

time	title	presenter
17:00	Transfer and knockout with exotic nuclei (00h25')	OBERTELLI, Alexandre (CEA Saclay, France)
17:25	Reaction studies with low-energy weakly-bound beams at INFN-LNS (00h25')	DI PIETRO, Alessia Francesca (INFN-LNS, Catania, Italy)
17:50	Microscopic nuclear form factors for the pygmy dipole resonance (00h20')	LANZA, Giuseppe Edoardo (INFN-Sezione di Catania, Italy)
18:10	First observation of beta-delayed gamma-proton decay in ^{56}Zn (00h20')	ORRIGO, Sonja (IFIC-CSIC Valencia, Spain)
18:30	Effect of breakup channel on other reaction mechanisms of the $8\text{B} + 208\text{Pb}$ system at near barrier energies (00h20')	JESUS, Lubian (IF, UFF, Brazil)

Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions - INFN-LNS, Sala Conferenze (23 June 17:00-19:05)

- Conveners: Di Toro, Massimo (INFN-LNS and Univ. of Catania, Italy)

time	title	presenter
17:00	The ASY-EOS experiment at GSI: investigating symmetry energy at supra-saturation densities (00h25')	RUSSOTTO, Paolo (INFN-Sezione di Catania, Italy)
17:25	Impact of the in-medium conservation of energy on the π^-/π^+ multiplicity ratio (00h20')	COZMA, Dan (IFIN-HH, Bucharest, Romania)
17:45	Impact of pairing effects on thermodynamical properties and clusterization of stellar matter (00h20')	BURRELLO, Stefano (INFN-LNS, Catania, Italy)
18:05	Charge-Changing Cross Section Measurement of Neutron-rich Carbon Isotopes at 50A MeV (00h20')	TRAN, Dinh Trong (Research Center for Nuclear Physics, Osaka, Japan)
18:25	High-spin Molecular Resonances in $^{12}\text{C}+^{12}\text{C}$ (00h20')	UEGAKI, Eiji (Akita University, Japan)
18:45	Clusters in heavy ion collisions and the symmetry energy (00h20')	WOLTER, Hermann Wolter (University of Munich, Germany)

Fusion and Fission - Aula A (23 June 17:00-19:05)

- Conveners: Rowley, Neil (IPN, Orsay, France)

time	title	presenter
17:00	Timelines in Breakup: Sub-zeptosecond processes in near-barrier reaction dynamics (00h25')	DASGUPTA, Mahananda (Australian National University, Canberra, Australia)
17:25	Breakup of weakly bound nuclei and its influence on fusion (00h20')	GOMES, Paulo R S (Universidade Federal Fluminense, Brazil)
17:45	Effect of breakup and transfer on complete and incomplete fusion in $6\text{Li}+209\text{Bi}$ reaction in multi-body classical molecular dynamics calculation (00h20')	GODRE, Subodh S. (Veer Narmad South Gujarat University, Surat, India)

18:05	Fusion reactions of $^{58,64}\text{Ni} + ^{124}\text{Sn}$ (00h20')	GALTAROSSA, Franco (INFN-LNL, Legnaro, Italy)
18:25	Study of the $^{20,22}\text{Ne} + ^{20,22}\text{Ne}$ and $^{10,12,13,14,15}\text{C} + ^{12}\text{C}$ fusion reactions with MUSIC (00h20')	AVILA, Melina (Physics Division, Argonne National Laboratory, Argonne IL, USA)
18:45	Dissipation strength of the tilting degree of freedom in fusion-fission reactions (00h20')	NADTOCHY, Pavel (Omsk State University, Russia)

Nuclear Astrophysics - INFN-LNS, Aula 52 (23 June 17:00-19:10)

- **Conveners: Bertulani, Carlos (Texas A University-Commerce, USA)**

time	title	presenter
17:00	Reactions on neutron-deficient nuclei for nuclear astrophysics (00h25')	BLACKMON, Jeffrey (Louisiana State University, Baton Rouge, USA)
17:25	The $^{12}\text{C}(^{12}\text{C},\alpha)^{20}\text{Ne}$ and $^{12}\text{C}(^{12}\text{C},p)^{23}\text{N}$ reactions at the Gamow peak via the Trojan Horse Method (00h25')	TUMINO, Aurora (INFN-LNS, Catania, Italy)
17:50	Asymptotic Normalisation Coefficients from the $^{26}\text{Al}(d,p)^{27}\text{Al}$ reaction, mirror nuclei study and application to nuclear astrophysics (00h20')	MARGERIN, Vincent (University of Edinburgh, United Kingdom)
18:10	AGB star nucleosynthesis: when new data from nuclear physics help to solve puzzles (00h20')	PALMERINI, Sara (INFN - LNS, Catania, Italy)
18:30	Neutron Star Structure from the Quark-Model Baryon-Baryon Interaction (00h20')	FUKUKAWA, Kenji (Research Center for Nuclear Physics, Osaka, Japan)
18:50	Electron screening in laboratory experiments-an unresolved effect (00h20')	VESIC, Jelena (Jozef Stefan Institute, Ljubljana, Slovenia)

Wednesday 24 June 2015

Nuclear Energy and Applications of Nuclear Science and Technologies - Aula Magna (24 June 08:30-10:30)

- Conveners: Gales, Sidney (ELI-NP, Bucharest, Romania)

time	title	presenter
08:30	Recent developments in Nuclear Physics tools and techniques applied to nuclear energy (00h30')	LERAY, Sylvie (CEA Saclay, France)
09:00	Nuclear Physics and Particle Therapy (00h30')	BATTISTONI, Giuseppe (INFN-Sezione di Milano, Italy)
09:30	Recent trends in applications of nuclear techniques to Cultural Heritage (00h30')	MANDO', Pier Andrea (INFN & Univ. of Florence, Italy)
10:00	A New Generation of Gamma Ray Sources based on Compton back-scattering: future potentialities for Nuclear Physics and Photonics (00h30')	SERAFINI, Luca (INFN - Milano, Italy)

Coffee Break - Main Hall (10:30-11:00)

Reactions and Structure - Unstable Nuclei - Aula Magna (24 June 11:00-13:00)

- Conveners: Sakai, Hideyuki (RIKEN Nishina Center, Saitama, Japan)

time	title	presenter
11:00	Reaction theory: status and perspectives (00h30')	MORO, Antonio (University of Seville, Spain)
11:30	Broad resonances in ^8Be , ^{12}C and ^{16}O studied with reactions and beta-decay (00h30')	FYNBO, Hans Otto Uldall (University of Aarhus, Denmark)
12:00	Continuum spectroscopy of light nuclei (00h30')	CHARITY, Robert (Washington University, USA)
12:30	Nuclear structure and reaction studies with Fermionic Molecular Dynamics (00h30')	NEFF, Thomas (GSI Darmstadt, Germany)

Lunch - INFN-LNS, GuestHouse (13:00-14:00)

Social trip - Volcano Etna (14:00-19:00)

Thursday 25 June 2015

Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions - Aula Magna (25 June 08:30-10:30)

- Conveners: Li, BAO-An (Texas A University-Commerce, USA)

time	title	presenter
08:30	Constraints on the asymmetric EOS from Heavy Ion Reactions (00h30')	YENNELLO, Sherry (Texas A University, USA)
09:00	Recent results on light nuclear systems; progress and problems (00h30')	FREER, Martin (University of Birmingham, UK)
09:30	Pairing effects in nuclear reactions (00h30')	LACROIX, Denis (IPN Orsay, France)
10:00	Cluster production within transport theory (00h30')	ONO, Akira (Tohoku University, Sendai, Japan)

Coffee Break - Main Hall (10:30-11:00)

Fusion and Fission - Aula Magna (25 June 11:00-13:00)

- Conveners: Hinde, David (Australian National University, Canberra, Australia)

time	title	presenter
11:00	Present status of coupled-channels calculations for heavy-ion subbarrier fusion reactions (00h30')	HAGINO, Kouichi (Tohoku University, Sendai, Japan)
11:30	Sub- and near-barrier fusion reactions: experimental results (00h30')	MONTAGNOLI, Giovanna (INFN-Sezione di Padova, Italy)
12:00	Quantifying low-energy fusion dynamics of weakly bound nuclei (00h30')	DIAZ-TORRES, ALEXIS (ECT*, Trento, Italy)
12:30	Dynamical effects in fission reactions investigated at high excitation energy (00h30')	BENLLIURE, Jose (University of Santiago de Compostela, Spain)

Lunch - INFN-LNS, GuestHouse (13:00-14:30)

New Facilities and Detectors - INFN-LNS, Aula 125 (25 June 14:30-16:20)

- Conveners: Verde, Giuseppe (INFN-Sez. di Catania, Italy Orsay, France)

time	title	presenter
14:30	FAZIA applications (00h25')	PIANTELLI, Silvia (INFN, Sezione di Firenze, Italy)
14:55	High-energy ion beams accelerated by intense lasers (00h25')	BORGHESI, Marco (Queen's University Belfast, Ireland)
15:20	Effects of the interstrip gap on the efficiency and response of Double Sided Silicon Strip Detectors (00h20')	TORRESI, Domenico (INFN-LNS, Catania, Italy)
15:40	Status and Perspective of the FARCOS detector array (00h20')	PAGANO, Emanuele Vincenzo (INFN-LNS, Catania, Italy)
16:00	Progress in MAGNEX focal plane detector (00h20')	MUOIO, Anna Maria (INFN-LNS, Catania & University of Messina, Italy)

Relativistic Heavy-Ion Collisions - Aula M (25 June 14:30-16:40)

- Conveners: Hagel, Kris (Cyclotron Institute, Texas A & M University, USA)

time	title	presenter
14:30	Production and spectroscopy of light hypernuclei with heavy ion induced reactions (00h25')	SAITO, Takehiko (GSI, Darmstadt, Germany)
14:55	High pt Identified Particle Production in ALICE (00h25')	TOIA, Alberica (Uni Frankfurt and GSI, Germany)
15:20	Toward a solution of the RAA and v_2 puzzle for heavy quarks. (00h20')	SCARDINA, Francesco (INFN-LNS, Catania, Italy)
15:40	Fluctuations of conserved charges and freeze-out conditions in heavy ion collisions (00h20')	RATTI, Claudia (University of Houston, USA)
16:00	LIGHT FRAGMENTS FROM (C + Be) INTERACTIONS AT 0.6 GeV/nucleon (00h20')	KRUTENKOVA, Anna (ITEP, Moscow, Russia) ZARUBIN, Pavel (Joint Institute for Nuclear Research, Dubna, Russia)
16:20	Time evolution of heavy quark distribution function in quark gluon plasmas: Laplace transform approach (00h20')	MEHRABI PARI, Sharareh (Department of Physics, Ferdowsi university, Mashhad, Iran & Department of Physics and Technology, University of Bergen, Bergen, Norway)

Reactions and Structure - Unstable Nuclei - INFN-LNS, Aula Azzurra (25 June 14:30-16:35)

- Conveners: Dr. Carlson, Brett (Instituto Tecnológico de Aeronáutica, Brasil)

time	title	presenter
14:30	Static and dynamics effects in the elastic scattering of light radioactive nuclei elastic: the ^6He , $^7,^{10}\text{Be}$, ^8B and ^{10}C cases (00h25')	GUIMARAES, Valdir (Universidade de São Paulo - São Paulo - Brazil)
14:55	Using CHIMERA detector at LNS for gamma-particle coincidences (00h20')	CARDELLA, Giuseppe (INFN-Sezione di Catania, Italy)
15:15	alpha Cluster Structure in Unbound States of ^{19}Ne (00h20')	OTANI, Reiji (Kansai University, Osaka, Japan)
15:35	BCS description of weakly bound nuclei with a discretized continuum (00h20')	LAY VALERA, José Antonio (INFN - Sezione di Padova, Italy)
15:55	Study on the Neutron-Neutron Correlation in ^8He (00h20')	YANG, Zaihong (Peking University, Beijing, China)
16:15	Breakup of ^{22}C in a three-body model (00h20')	PINILLA, E. C. (Departamento de Física, Universidad Nacional de Colombia, Bogota, Colombia)

Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions - INFN-LNS, Sala Conferenze (25 June 14:30-16:20)

- Conveners: Wolter, Hermann (University of Munich, Garching, Germany)

time	title	presenter
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14:30	Symmetry Energy in Structure and in Central and Direct Reactions (00h25')	DANIELEWICZ, Pawel (Michigan State University, USA)
14:55	Three-body force effect on the properties of neutron-rich nuclear matter (00h25')	ZUO, Wei (Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou, China)
15:20	Asymmetry Dependence of the Nuclear Caloric Curve (00h20')	MCINTOSH, Alan (Texas A&M Univeristy, USA)
15:40	Properties of Excited A = 40 Nuclear Systems With Varying Matter Composition (00h20')	SCHMIDT, Katarzyna (University of Silesia, Katowice, Poland)
16:00	Effects of symmetry energy and momentum dependent interaction on low-energy reaction mechanisms (00h20')	ZHENG, hua (INFN, LNS, Catania, Italy)

Fusion and Fission - Aula A (25 June 14:30-16:40)

- Conveners: Gomes, Paulo (Universidade Federal Fluminense, Brasil)

time	title	presenter
14:30	Study og GDR widths at low temperature and lambda spectrometer (00h25')	BANERJEE, S.R. (Variable Energy Cyclotron Centre, Kolkata, India)
14:55	Systematic study of quasifission characteristics and timescales in heavy element formation reactions (00h25')	HINDE, David (Australian National University, Canberra, Australia)
15:20	Fission study by multi-nucleon transfer reaction at JAEA (00h20')	HIROSE, KENTARO (Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan)
15:40	Fusion and neutron transfer reactions with weakly bound nuclei within time-dependent and coupled channel approaches (00h20')	SAMARIN, Viacheslav (Flerov Laboratory of Nuclear Reactions, the Joint Institute for Nuclear Research, Dubna, Russia)
16:00	Measurement of fusion excitation function for ${}^7\text{Li}+{}^{64}\text{Ni}$ at near the VB (00h20')	SHAIKH, MD. MOIN (Saha Institute of Nuclear Physics, Kolkata, India)
16:20	Systematics for low energy incomplete fusion: still a puzzle? (00h20')	YADAV, Abhishek (Inter-University Accelerator Centre, New Delhi, India)

Nuclear Astrophysics - Aula Magna (25 June 14:30-16:45)

- Conveners: Fulop, Zsolt (MTA Atomki, Debrecen, Hungary)

time	title	presenter
14:30	Indirect techniques for astrophysical reaction rates determinations (00h25')	HAMMACHE, Fairouz (IPN-Orsay, France)
14:55	Studying astrophysical reactions with low-energy RI beams at CRIB (00h25')	YAMAGUCHI, Hidetoshi (Center for Nuclear Study, University of Tokyo, Japan)
15:20	LUNA: present status and future prospects (00h25')	CACIOLLI, Antonio (INFN-Padova, Italy)

15:45	Fusion measurements of $^{12}\text{C}+^{12}\text{C}$ at energies of astrophysical interest (00h20')	SANTIAGO-GONZALEZ, Daniel (LSU, ANL, USA)
16:05	Nuclear magics at explosive magnetization (00h20')	KONDRATYEV, Vladimir (National Taras Shevchenko University of Kyiv, Ukraine)
16:25	The Trojan Horse Method as a tool for investigating astrophysically relevant fusion reactions (00h20')	LAMIA, Livio (INFN-LNS, Catania, Italy)

Coffee Break - Main Hall (16:40-17:00)

New Facilities and Detectors - INFN-LNS, Aula 125 (25 June 17:00-18:55)

- **Conveners: Lopez, Olivier (Laboratoire de Physique Corpusculaire de Caen, France)**

time	title	presenter
17:00	Highlights of the ISOLDE Facility and the HIE-ISOLDE Project (00h25')	BORGE, Maria J G. (ISOLDE-PH, CERN, Switzerland)
17:25	The performance of AGATA: from the LNL Demonstrator to the GANIL setup (00h25')	MICHELAGNOLI, Caterina (LNL-INFN, Legnaro, Italy)
17:50	The nuclear matrix elements of neutrino-less double beta decay and the NUMEN project at INFN-LNS (00h25')	CAPPUZZELLO, Francesco (INFN-LNS, Catania, Italy)
18:15	Detector developments for the Super-FRS (00h20')	NOCIFORO, Chiara (GSI, Darmstadt, Germany)
18:35	CALIFA: The R3B CALorimeter for In Flight detection of g-rays and high energy charged pArticles (00h20')	CORTINA-GIL, Dolores (Universidad Santiago Compostela, Spain)

Reactions and Structure - Unstable Nuclei - INFN-LNS, Aula Azzurra (25 June 17:00-18:50)

- **Conveners: Bonaccorso, Angela (INFN and Univ. of Pisa, Italy)**

time	title	presenter
17:00	Effect of ^{6}Li resonances on near-barrier elastic scattering for reactions with several spherical targets (00h25')	GOMEZ CAMACHO, Arturo (Instituto Nacional de Investigaciones Nucleares, Mexico City, Mexico)
17:25	Low-energy $^{9}\text{Be}+^{208}\text{Pb}$ scattering, breakup and fusion within a four-body model (00h25')	HUSSEIN, Mahir (Universidade de Sao Paulo, Brazil)
17:50	Coulomb breakup of ^{37}Mg and its ground state structure (00h20')	CHATTERJEE, Rajdeep (Dept. of Physics, IIT-Roorkee, India)
18:10	Study of cluster structures in ^{10}Be and ^{16}C neutron-rich nuclei via break-up reactions (00h20')	DELL'AQUILA, Daniele (Univ. Napoli Federico II and INFN - Napoli, Italy)
18:30	Coupled Rearrangement Channels Calculation of The Three Body System under The Absorbing Boundary Condition (00h20')	IWASAKI, Masataka (Department of Pure and Applied Physics, Kansai University, Japan)

Reactions and Structure - Unstable Nuclei - Aula M (25 June 17:00-18:50)

- **Conveners: Obertelli, Alexandre (CEA Saclay, France)**

time	title	presenter
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17:00	Systematics of Elastic and Inelastic Deuteron Breakup (00h25')	CARLSON, Brett (Instituto Tecnológico de Aeronáutica, São José dos Campos, Brazil)
17:25	Self-consistent description of deformed proton drip-line nuclei (00h25')	FERREIRA, Lidia S. (CeFEMA, Dep Física, IST, Univ Lisboa, Portugal)
17:50	Elastic, inelastic and breakup cross sections in $6\text{Li}+112\text{Sn}$ system (00h20')	SANTRA, Satyaranjan (Bhabha Atomic Research Centre, India)
18:10	Some Peculiarities of Interactions of Weakly Bound Lithium Nuclei at Near Barrier Energies (00h20')	KUTERBEKOV, K.A. (Gumilyov National University, Astana, Kazakhstan)
18:30	Mechanism of two-proton emission from ^{23}Al and ^{22}Mg (00h20')	FANG, Deqing (Shanghai Institute of Applied Physics, Chinese Academy of Sciences, China)

Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions - INFN-LNS, Sala Conferenze (25 June 17:00-18:55)

- **Conveners: BORDERIE, Bernard (Institut de Physique Nucléaire IN2P3/CNRS, Orsay, France)**

time	title	presenter
17:00	Neutron Stars: cosmic laboratories for matter under extreme conditions (00h25')	BOMBACI, Ignazio (Università di Pisa, Italy)
17:25	Clusters in n-rich light nuclei (00h25')	MILIN, Matko (University of Zagreb, Croatia)
17:50	Nuclear symmetry energy in density-dependent relativistic Hartree-Fock theory: the role of Fock terms and tensor force (00h25')	SUN, Bao Yuan (School of Nuclear Science and Technology, Lanzhou University, China)
18:15	Excited states of ^{26}Al studied via the reaction $^{27}\text{Al}(d, t)$ (00h20')	SRIVASTAVA, Vishal (Variable Energy Cyclotron Centre, Kolkata, India)
18:35	Influence of various potentials on fragment production in asymmetric collisions (00h20')	KAUR, Varinderjit (Mata Gujri College, Patiala, India)

Fusion and Fission - Aula A (25 June 17:00-18:50)

- **Conveners: Prof. Andreyev, Andrei (University of York, UK)**

time	title	presenter
17:00	Description of the fusion-fission reactions in the framework of dinuclear system conception (00h25')	KALANDAROV, Shuhrat (Joint Institute for Nuclear Research, Dubna, Russia)
17:25	The influence of the 2-neutron elastic transfer on the fusion of $^{42}\text{Ca} + ^{40}\text{Ca}$ (00h25')	STEFANINI, Alberto (INFN-LNL. Legnaro, Padova, Italy)
17:50	Exploring dissipative processes at high angular momentum (00h20')	WILLIAMS, Elizabeth (Australian National University, Canberra, Australia)
18:10	Nucleus-nucleus potential with shell-correction contribution: barriers and subbarrier fusion (00h20')	DENISOV, Vitali (Institute for Nuclear Research, Dubna, Russia)

18:30	Fusion of $^{16,18}\text{O} + ^{58}\text{Ni}$ at energies near the Coulomb barrier (00h20')	JIA, H.M. (China Institute of Atomic Energy, Beijing, China)
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Nuclear Astrophysics - Aula Magna (25 June 17:00-18:50)

- **Conveners: Cherubini, Silvio (INFN-LNS & University of Catania)**

time	title	presenter
17:00	Recent results of the nTOF facility (00h25')	TAGLIENTE, Giuseppe (INFN, Bari, Italy)
17:25	Constraining the key α -capture astrophysical reaction rates using the sub-Coulomb α -transfer reactions (00h25')	ROGACHEV, Grigory (Florida State University, Usa)
17:50	Insight into the ^{24}Mg excited states located in Gamow window for carbon - carbon burning (00h20')	SOIC, Neven (Rudjer Boskovic Institute, Zagreb, Croatia)
18:10	Primordial nucleosynthesis revised: the THM contribution (00h20')	PIZZONE, Rosario (INFN-LNS, Catania, Italy)
18:30	New measurement of the $^{10}\text{B}(p,\alpha)^7\text{Be}$ reaction cross section at low energies and the structure of ^{11}C (00h20')	LOMBARDO, Ivano (Università di Napoli Federico II and INFN - Sez. Napoli, Italy)

Social Dinner - Palazzo Biscari, Catania (21:00-00:00)

Friday 26 June 2015

Social Dinner - Palazzo Biscari, Catania (21:00-00:00)

Nuclear Astrophysics - Aula Magna (26 June 08:30-10:30)

- Conveners: Wiescher, Michael (University of Notre Dame, USA)

time	title	presenter
08:30	Reaction models in nuclear astrophysics (00h30')	DESCOUVEMONT, Pierre (Universite Libre de Bruxelles, Belgium)
09:00	Indirect methods in nuclear astrophysics (00h30')	MUKHAMEDZHANOV, Akram (Texas A University, USA)
09:30	Where is the site of the r-process? (00h30')	APRAHAMIAN, Ani (University of Notre Dame, USA)
10:00	Nuclear Reaction studies for Explosive Nuclear Astrophysics (00h30')	WOODS, Philip (Edinburgh University, UK)

Coffee Break - Main Hall (10:30-11:00)

New Facilities and Detectors - Aula Magna (26 June 11:00-13:00)

- Conveners: Chomaz, Philippe (IRFU, Gif Sur Yvette, France)

time	title	presenter
11:00	Present and future of RIB facilities in Europe (00h30')	LEWITOWICZ, Marek (GANIL, Caen, France)
11:30	Time Projection Chambers to probe Nuclear Reactions (00h30')	TSANG, Betty (Michigan State University, USA)
12:00	Research at the future facility Extreme Light Infrastructure - Nuclear Physics (ELI-NP) (00h30')	ZAMFIR, Victor (National Institute for Physics and Nuclear Engineering, Bucharest-Magurele, Romania)
12:30	Radioactive ion beam factory at RIKEN (00h30')	EN'YO, Hideto (RIKEN Nishina Center for Accelerator-Based Science, Wako-Saitama, Japan)

Summary Talk - Aula Magna (13:00-13:30)

- Presenters: MOTOBAYASHI, Toru (RIKEN Nishina Center, Saitama, Japan)

Lunch - INFN-LNS, GuestHouse (13:30-15:00)