TNPI2017 – XVI Conference on Theoretical Nuclear Physics in Italy

Cortona, October 3 – 5, 2017

Scientific program

Tuesday, October 3

09:00 – 09:30	Registration
09:30 – 09:40	Opening
09:40 – 10:10	F. Pederiva (TIFPA, Trento): Microscopic Theories of Strongly Interacting Many-Body Systems
10:10 – 10:40	M. Barbaro (Torino Univ.): Neutrino-nucleus scattering: recent progress in the superscaling approach
10:40 – 11:10	Coffee break
11:10 – 11:30	C. Barbieri (Surrey Univ.): Ab initio SCGF computations medium mass nuclei
11:30 – 11:50	L. Riz (Trento Univ.): Neutrino Mean Free Path in neutron matter from QMC equation of state
11:50 – 12:20	F. Becattini (Firenze Univ.): Polarization and vorticity in relativistic heavy ion collisions
12:20 – 12:40	V. Minissale (LNS, Catania): Light and heavy hadron production in heavy-ion collisions from a coalescence model
13:00 – 14:30	Lunch
14:30 – 15:00	L. Girlanda (Salento Univ., Lecce): Theoretical and experimental constraints on the subleading three-nucleon contact interaction
15:00 – 15:30	F. Murgia (INFN, Cagliari): NINPHA: Understanding the (3D) structure of hadrons
15:30 – 15:50	M. Rinaldi (CSIC-Universitat de Valencia): Double parton correlations in double parton distribution functions and 3D structure of the proton
15:50 – 16:10	H. Garcia Tecocoatzi (INFN, Genova): Strangeness suppression and baryon masses in the UQM
16:10 – 16:30	M. A. Bedolla (INFN, Genova): Modeling QCD through a Contact Interaction
16:30 – 17:00	Coffee break
17:00 – 17:30	G. Pagliara (Ferrara Univ.): Two families of compact stars?

17:30 – 17:50 D. Logoteta (INFN, Pisa): Equation of state of dense nuclear matter and neutron star structure from nuclear chiral interactions

17:50 – 18:10 J. Ferretti (Chinese Academy of Science): Spectroscopy of fully-heavy tetraquarks

18:10 – 18:30 A. Giachino (INFN, Genova): Pentaquark states at LHC_b

18:30 – 18:50 M. Mannarelli (LNGS, Assergi): Recent developments in pion condensation

Wednesday, October 4

09:00 – 09:30 A. Perego (INFN, Milano Bicocca): Neutrinos in core collapse supernovae and neutron stars mergers

09:30 – 10:00 A. Gargano (INFN, Napoli): The STRENGTH project

10:00 – 10:20 E. Vigezzi (INFN Milano): Beta-decay half lives and quasiparticle vibration coupling

10:20 – 10:40 A. Bonaccorso (INFN, Pisa): Continuum states of exotic nuclei

10:40 – 11:10 Coffee break

11:10 – 11:40 M. Sambataro (INFN, Catania): Quartet structure of N=Z nuclei

11:40 – 12:00 J. I. Bellone (Catania Univ.): Probing beta decay matrix elements through heavy ion charge

12:00 – 12:20 L. De Angelis (INFN, Napoli): Shell-model calculation of Gamow-Teller and two-neutrino double-beta decay properties for 130Te and 136Xe

12:20 – 12:40 T. Fukui (INFN, Napoli): Three-body matrix elements with harmonic-oscillator states

13:00 – 14:30 Lunch

14:30 – 15:10 P. Prati (Genova Univ.): LUNA: achievements and perspectives

15:10 – 15:50 A. Scordo (LNF, Frascati): Investigating low energy strangeness QCD through kaon nucleon interactions by the AMADEUS collaboration

15:50 – 16:20 I. Vidaña (INFN, Catania): Excitation of nucleon resonances in isobar charge exchange reactions of heavy nuclei

16:20 – 16:50 Coffee break

16:50 – 17:20 M. Antonelli (Milano Univ.): Pulsar glitches and neutron star masses

17:20 – 17:40 L. Oliva (LNS, Catania): The pre-equilibrium stage of ultra-relativistic heavy ion collisions and its impact on photon production

17:40 – 19:00 Discussion on the status and future of Theoretical Nuclear Physics in Italy

Thursday, October 5

09:00 – 09:30 M. Viviani (INFN, Pisa): L'I.S. FBS dell'INFN: stato dei progetti in corso e prospettive future

09:30 – 10:00 A. Lovato (TIFPA, Trento): Quantum Monte Carlo calculations for electron- and neutrino-nucleus scattering

10:00 – 10:20 L. E. Marcucci (Pisa Univ.): Theoretical study of the alpha+d → 6Li+gamma radiative capture and its implications for Big Bang Nucleosynthesis

10:20 – 10:40 J. Dohet Eraly (INFN, Pisa): Hyperspherical harmonics approach: beyond the three-body system

10:40 – 11:10 Coffee break

11:10 – 11:40 F. Raimondi (Surrei Univ.): Three-nucleon force correlations and electromagnetic response in finite nuclei with self-consistent Green's functions

11:40 – 12:00 F. Ferrari-Ruffino (TIFPA, Trento): Some extensions to the Hyperspherical Harmonics approach

12:00 – 12:20 A. Gnech (GSSI, L'Aquila): Time Reversal Violation in two Nucleons Systems

12:20 – 12:40 A. Kievsky (INFN, Pisa): Saturation properties of helium drops

12:40 – 12:45 Closing