

Program of the 19th Nuclear Physics Workshop

[Version: 24.09.2012]

Wednesday, 26 September

18.00–19.00 Lunch

19.00–19.15 Opening of the workshop

19.15–19.45 Yua. A. Litvinov, **A. Sobiczewski**, Quality of theoretical masses in various regions of the nuclear chart

19.45–20.15 **J. Dudek**, Predictive power of mathematical modelling in physics

20.30–22.00 Welcome reception.

Thursday, 27 September

08.00–09.00 Breakfast

Morning Session: Nuclear Dynamics

09.00–09.30 **H.J. Krappe**, Mean-field fluctuations at scission

09.30–10.00 **J. Randrup**, Brownian shape dynamics in fission: formal foundation and further refinements

10.00–10.30 **C. Schmitt**, P.N. Nadtochy, K. Mazurek, Evidence of some limitation of current multidimensional Langevin calculations

10.30–10.50 Coffee-break

10.50–11.20 **K. Siwek-Wilczyńska**, T. Cap, M. Kowal, J Wilczyński, Production cross sections of superheavy elements in cold and hot fusion reactions calculated with the Warsaw macro-micro model fission barriers

11.20–11.50 **A.I. Kiliç**, K. Czerski, P. Heide, A. Huke, M. Kaczmarek, G. Ruprecht, N. Targosz-Slecza, D. Weißbach, Athreshold resonance state explains unusual branching ratio and angular distribution of the D+D fusion reactions at a very low energies

11.50–12.20 **A.R. Balabekyan**, Comparative analysis of cross sections of residual nucleon separated tin isotopes at a beam energy of protons and deuterons 3.65 GeV/nucleon

12.20–12.50 J.P. Błocki, **A.G. Magner**, Transport coefficients for a slow Fermi-particle motion

13.00–14.00 Lunch

Afternoon session: Nuclear Dynamics

16.00–16.30 **K. Mazurek**, C. Schmitt, P. Nadtochy, A. Maj, P. Wasiak, M. Kmiecik, B. Wasilewska, Fission dynamics as a probe of the shape – dependent congruence energy term in the macroscopic models

16.30–17.00 **P. Bednarczyk**, Quest for intruder band terminating states in the medium mass $A = 40 - 60$ shell model nuclei: challenge for experiments and theory

17.00–17.20 Coffee-break

17.20–17.50 **T. Cap**, K. Siwek-Wilczyńska, I. Skwira-Chalot, J. Wilczyński, Partitioning of the $^{197}\text{Au}+^{197}\text{Au}$ system at an energy of $23A$ MeV (preliminary results)

17.50–18.20 **R. Najman**, Characteristics of the fragments production in $^{197}\text{Au}+^{197}\text{Au}$ reaction at 23 A MeV

18.20–18.50 **J. Kroll** et al., Scissors mode resonances built on excited levels in Gd nuclei studied from neutron capture in resonance region

19.30–24.00 Barbecue

Friday, 28 September

08.00–09.00 Breakfast

Morning session: Nuclear structure

09.00–09.30 **Jie Meng**, Mass and lifetime of unstable nucleus in covariant density functional theory

09.30–10.00 **X. Roca-Maza**, G. Colò, H. Sagawa, Towards the improvement of the spin-isospin properties of the Skyrme energy density functional. nuclei

10.00–10.30 **Z.P. Li**, Energy density functional description of nuclear low-lying spectrum and shape transition

10.30–10.50 Coffee-break

10.50–11.20 **J. Sadoudi**, Development of pseudo-potential based energy density functionals for spectroscopic studies of atomic nuclei

11.20–11.50 **A. Pastore**, Linear response theory as a tool to detect instabilities in Skyrme functionals

11.50–12.20 **S. Leoni**, Gamma spectroscopy as a tool to search for particle-phonon coupled states: status and perspectives

13.00–14.00 Lunch

Afternoon session: Nuclear structure

16.00–16.30 W. Brodziński, P. Jachimowicz, M. Kowal, I. Próchniak, **J. Skalski**, Superheavy nuclei – predictions on their stability & structure

16.30–17.00 P. Jachimowicz, **M. Kowal**, J. Skalski, Puzzle of third minima in actinides

17.00–17.20 Coffee-break

17.20–17.50 **G. Colò**, A microscopic nuclear structure model from many-body equation

17.50–18.20 **N. Minkov**, Non-yrast quasi parity-doublet spectra in odd-mass nuclei

18.20–18.50 **A. Staszczak**, L. Próchniak, Prolate-oblate oscillation between the ground state of even–even SHE

19.00–20.00 Dinner

20.15 – Concert

Saturday, 29 September

08.00–09.00 Breakfast

Morning session: Miscellanea

09.00–09.30 **A. Krasznahorkay**, D. Vretenar, N. Paar, Neutron-skin thickness from the study of giant dipole resonance

09.30–10.00 J. Kvasil, **V.O. Nesterenko**, W. Kleinig, P.G. Reinhard, Nuclear vorticity and second-order E1 giant resonances

10.00–10.30 **M. Brenna**, G. Colò, P.F. Bortignon, X. Roca-Maza, K. Mizuyama, G. Pozzi, Low-lying dipole response in stable and unstable nuclei

10.30–10.50 Coffee-break

10.50–11.20 **F.A. Ivanyuk**, K. Pomorski, On the Poincaré instability of rotating nuclei

11.20–11.50 **J. Bartel**, About the existence of a Poincaré transition in rotating nuclei

11.50–12.05 **K. Pomorski**, Remarks on the newest liquid drop model

13.00–14.00 Lunch

Afternoon session: Miscellanea

16.00–16.20 Coffee-break

16.20–16.50 **M. Warda**, Mean-field description of fission in light Hg isotopes

16.50–17.20 **A. Dobrowolski**, Electric transition in hypothetical octahedral nuclei.

17.20–17.50 **A. Gózdź**, Hidden symmetries in intrinsic frame

18.00–18.20 Closing of the Workshop

19.00–20.00 Vernissage

20.00–24.00 Conference dinner

Sunday, 30 September

08.00–09.00 Breakfast

09.00–13.00 Excursion

13.00–14.00 Lunch