

NuSYM14 Programme

7-9 July 2014, University of Liverpool (UK)

The Registration Desk is located in the Foyer of the **Central Teaching Laboratory** (Building 802 on campus map)

All presentations take place in the **Rotblat Lecture Theatre, Chadwick Laboratory** (Building 207 on campus map, entrance opposite Building 802)

Coffee breaks and lunches are served in the Atrium of the **Central Teaching Laboratory** (Building 802 on campus map, where the registration desk is)

Monday 7 July

9:00-10:40 Heavy-ions – Chair: B. Tsang (MSU)

E. De Filippo (INFN Catania) (20+5')
Probing the low density nuclear symmetry energy with heavy ion collisions

Z. Chajecki (MSU) (20+5')
Scaling properties of light-cluster production

A. Chbihi (GANIL) (20+5')
Exploring the symmetry energy in $^{40,48}\text{Ca}+^{40,48}\text{Ca}$ systems at $E/A = 35$ MeV

Z. Kohley (MSU) (20+5')
Constraints on $E_{\text{sym}}(\rho)$ -L from RIB induced reactions

10:40-11:10 Coffee break

11:10-12:50 Theory – Chair: A. Rios Huguet (University of Surrey)

M. Baldo (INFN Catania) (25+5')
Microscopic calculation of the nuclear symmetry energy

P. Stevenson (University of Surrey) (25+5')
The isoscalar giant quadrupole resonance as a probe of nuclear matter

H. Nakada (Chiba University) (15+5')
Interaction-dependence and independence in low-energy E1 excitations of neutron-rich nuclei

V. De La Mota (Subatech Nantes) (15+5')

Probing the occurrence of material structures at subnuclear densities with a dynamical self-consistent description

12:50-13:40 Lunch

13:40-15:40 Astrophysics – Chair: R. Lemmon (STFC Daresbury)

W. Del Pozzo (University of Birmingham) (25+5')

Constraining the equation of state of neutron stars with ground based gravitational waves observations

T. Sumner (Imperial College London) (25+5')

Astrophysics from milli-hertz gravitational wave observations by the ESA L3 mission

A. Steiner (University of Washington) (25+5')

What the symmetry energy has to say about neutron star radii and the neutron star crust

W. Newton (Texas A&M) (25+5')

Symmetry energy constraints from observational signatures of the neutron star crust-core transition

15:40-16:10 Coffee break

16:10-16:40 Astrophysics (continued) – Chair: M. Chartier (University of Liverpool)

W. Ho (University of Southampton) (25+5')

Detailed tests of nuclear properties with astronomical observations of neutron stars

16:40-17:55 Nuclear Structure – Chair: M. Chartier (University of Liverpool)

M. Freer (University of Birmingham) (20+5')

Correlations and clusters in neutron-rich nuclear matter

S. Typel (GSI) (20+5')

Cluster correlations in dense matter and equation of state

P. Egelhof (GSI) (20+5')

Direct reactions with exotic beams at low momentum transfer: investigations with stored beams and with active targets

18:00-20:00 Welcome reception (University of Liverpool Victoria Gallery)

Tuesday 8 July

9:00-10:30 Heavy-ions – chair: A. Chbihi (GANIL)

Y.X. Zhang (CIAE Beijing) (20+5')

Influence of symmetry energy and nucleon effective mass splitting on HIC observables

A. Le Fevre (GSI) (15+5')

Constraining the nuclear equation of state using the elliptic flow of light clusters

J. Brzychczyk (Jagiellonian University) (15+5')

Light charge particle flows in the ASY-EOS experiment measured with the KRATTA detector

P. Napolitani (IPN Orsay) (20+5')

Isoscalar and isovector fluctuations in one-body transport approaches for fermionic systems

10:30-11:00 Coffee break

11:00-12:35 Nuclear structure – Chair: P. Stevenson (University of Surrey)

L. Zana (University of Edinburgh) (25+5')

The PREX II and CREX experiments at Jefferson Laboratory: measurements of neutron skins in ^{208}Pb and ^{48}Ca with parity violation

E. Khan (IPN Orsay) (20+5')

The determination of incompressibility in nuclei and nuclear matter

M. Vandebrouck (GANIL) (15+5')

First measurement of the isoscalar giant resonances in a neutron-rich exotic nucleus: ^{68}Ni with the active target MAYA

M. Spieker (University of Cologne) (15+5')

Studying the character of the Pygmy Dipole Resonance using hadronic probes

12:35-13:30 Lunch

13:30-14:00 Nuclear structure (continued) – Chair: W. Trautmann (GSI)

T. Hashimoto (Institute for Basic Science) (25+5')

Complete measurement of Electric Dipole Response of ^{120}Sn

14:00-15:30 Short-range and Tensor correlations – Chair: W. Trautmann (GSI)

E. Piassetzky (Tel Aviv University) (25+5')
Nucleon-nucleon short range correlation in nuclei

A. Rios Huguet (University of Surrey) (25+5')
High-momentum components in the nuclear symmetry energy

M. Bashkanov (Tuebingen University) (25+5')
Dibaryons in vacuum and in nuclear matter

15:30-16:00 Coffee break

16:00-16:55 Short-range and Tensor correlations (continued) – Chair: T. Murakami (University of Kyoto)

C. Providencia (University of Coimbra) (25+5')
Interplay between the symmetry energy and the strangeness content of neutron stars

B.A. Li (Texas A&M) (20+5')
Effects of short-range correlation on symmetry energy and their manifestation in heavy-ion reactions

16:55-18:30 Heavy-ions – Chair: Y. Leifels (GSI)

T. Galatyuk (GSI) (25+5')
HADES overview: from cold matter to low energy heavy-ion collisions

P. Russotto (INFN Catania) (20+5')
The ASY-EOS experiment at GSI: investigating symmetry energy at supra-saturation densities

T. Isobe (20+5')
The S π RIT project for the study of density dependent symmetry energy of highly dense matter with Heavy RI collisions at RIBF

W. Powell (University of Liverpool and RIKEN) (10+5')
Current status of S π RIT TPC electronics testing at RIBF

19:30 Dinner at 60 Hope Street

Wednesday 9 July

9:00-10:30 Heavy-ions – Chair: H. Wolter (University of Munich)

D. Cozma (NIPNE Bucharest) (25+5')

The π^-/π^+ multiplicity ratio in heavy-ion collisions and the conservation of energy

F.S. Zhang (Beijing Normal University) (15+5')

Studying the density and momentum dependent symmetry energy: a Boltzmann-Langevin approach

C. Rizzo (INFN Catania) (15+5')

Isospin effects in low-energy heavy ion collisions

B. Carlson (ITA Sao Jose dos Campos) (15+5')

The geometry of a hot compound nucleus

10:30-11:00 Coffee break

11:00-12:30 Theory – Chair: Y.X. Zhang (CIAE Beijing)

I. Vidana (University of Coimbra) (25+5') (EPJ A sponsored lecture)

Nucleon resonances in isobaric charge-exchange reactions

F. Aymard (LPC Caen) (15+5')

Sub-saturation matter in compact stars: nuclear modelling in the framework of the extended Thomas-Fermi theory

R. Sellahewa (University of Surrey) (15+5')

Isovector properties of the Gogny interaction in the context of neutron stars

K. Jeong (Yonsei University) (15+5')

Nuclear symmetry energy in QCD degree of freedom

12:30-13:30 Lunch

13:30-15:30 Future prospects – Chair: B.A. Li (TAMU)

Astrophysics

E. Brown (MSU) (25+5')

A way forward in the study of the symmetry energy: Astronomy

Asia

T. Murakami (Kyoto University) (10+5')
Prospects of the nuclear symmetry energy research in Japan

B. Hong (Korea University) (10+5')
Prospects of the nuclear symmetry energy research in Korea

Xiao (Tsinghua University) (10+5')
Prospects of the nuclear symmetry energy research in China

Europe

Y. Leifels (GSI) (15+5')
European perspectives at high energies

G. Verde (INFN Catania) (15+5') (EPJ A sponsored lecture)
Perspectives on dynamics studies at intermediate and low energies in Europe

15:30-16:00 Coffee break

16:00-17:00 Future prospects (continued) – Chair: B.A. Li (TAMU)

USA

W. Lynch (MSU) (25+5')
Constraining the symmetry energy: Future directions

Theory

H. Wolter (University of Munich) (25+5')
Summary of the future theoretical directions on studies of the nuclear symmetry energy

17:00-18:00 Discussion