

CUSTIPEN Mini-Workshop on Nuclear Reactions Nov. 16, 2016, Texas A&M University-Commerce



Program (Names in bold are discussion leaders)

Welcome, **Dr. Matt Wood**, Head of the Department of Physics and Astronomy, Texas A&M University-Commerce

(1) 8:30-9:15am, Development of quantum transport codes, dynamical and statistical formation of clusters in nuclear reactions

Pawel Danielewicz (Michigan State U) and Sergio Souza (Universidade Federal do Rio de Janeiro Cidade Universit´aria, Brazil)

(2) 9:15-10:00am, Development of spin-isospin transport codes incorporating effects of tensor force and spin-orbit coupling for nuclear reactions with polarized projectiles/targets

Jun Xu, Yin Xia (**Shanghai Institute of Applied Physics, China**) and Bao-An Li (TAMUC)

10:00-10:30am, **Discussions over coffee break*** (Group picture in front of the science building)**

(3)10:30-11:15am, Pion dispersion relation in neutron-rich matter and its effects on pion transport in nuclear reactions

Che Ming Ko (TAMU-College Station), Pawel Danielewicz (MSU), Jun Xu (SINAP) and Zhen Zhang (TAMU-College Station postdoc), Yifeng Sun (TAMU-College Station graduate student)

(4)11:15-12:00noon, Single-particle potential for transport model simulations of heavy-ion reactions from Many-Body Perturbation Theory using chiral 2- and 3-body forces

Jeremy Holt (TAMU-College Station), Yeunhwan Lim (TAMU-College Station Postdoc)

(5) 12:00-1:00pm, **Discussions over working lunch*****

(6) 1:00-1:45pm, Symmetry energy, neutron stars and gravitational waves, linking terrestrial experiments with astrophysical observations

Will Newton (TAMUC), Yeunhwan Lim (TAMU-College Station Postdoc) and Matt Witt (TAMUC graduate student)

(7)1:45-2:30pm, Effects of short-range correlations (SRC) on the EOS of neutron-rich matter, reformulation of energy density functionals and the corresponding single-particle potentials incorporating the SRC for transport model simulations of heavy-ion reactions

Bao-Jun Cai (TAMUC postdoc), Bao-An Li and Zach Taylor (TAMUC graduate student)

2:30-3:00, **Discussions over the coffee break*****

(8)3:00-3:45pm, Pigmy resonance, symmetry energy, nucleon momentum distribution in exotic nuclei and more

Carlos Bertulani (TAMUC+TAMU), Ravinder Kumar (DCR University of Science & Technology, Murthal, INDIA), Shub Shubhchintak (TAMUC postdoc), T.V. Nhan Hao (TAMUC postdoc), Harrie Chalk (TAMUC graduate student), Michael Hartos (TAMUC graduate student)

(9) 3:45-4:30pm, Update of the SEP (Symmetry Energy Project) experiments and data analysis, experimentalists' wish list for reaction theorists

Betty Tsang and Bill Lynch (Michigan State University), Alan McIntosh (TAMU-College Station)

(10) 4:30-5:00pm, Update of S.J. Yennello's research group

Alan McIntosh (TAMU) on isospin dependence of Nuclear Caloric Curve

Andrew Zarrella (TAMU-College Station graduate student) on pionic fusion

Andrea Jedele (TAMU-College Station graduate student) on Equilibration

Chronometry

Alis Rodriguez-Manso (TAMU-College Station postdoc) on N-Z equilibration

(11) 5:00-5:30pm, Bayesian inferences of the EOS and transport properties of neutron-rich matter from heavy-ion reactions, theorists' wish list for reaction experimentalists

Bao-An Li (TAMUC)

(12) 5:30pm- **Discussions over Texas BBQ*****

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