

## TALKS PRESENTED

April 1, 2019 – March 31, 2020

*Probing the nuclear equation-of-state with heavy-ion collisions*, **S.J. Yennello**, **Invited talk**, 58<sup>th</sup> International Winter Meeting on Nuclear Physics, Bormio, Italy (January 2020).

*Studying the stars here on earth: How the equation of state of nuclear matter impacts the formation of the elements*, **S.J. Yennello**, **Invited talk**, ACS-DNCT Summer School in Nuclear Chemistry, San Jose State University, San Jose, California (July 2019).

*Studying the stars here on earth: Experimental investigations of the nuclear equation-of-state*, **S.J. Yennello**, **Invited talk**, University of Virginia, Charlottesville, Virginia (November 2019).

*Graduate studies in nuclear science: an exciting beginning to a great future*, **S.J. Yennello**, **Invited talk**, University of Virginia, Charlottesville, Virginia (November 2019).

*Center for excellence in nuclear training and university-based research*, **S.J. Yennello**, **Invited talk**, 2020 SSAP symposium, Washington, DC (February 2020).

*First beams produced by the Texas A&M University radioactive-beam upgrade*, **D.P. May**, **Invited talk**, F.P. Abegglen, J. Ärje, H. Clark, G.J. Kim, B.T. Roeder, A. Saastamoinen, and G. Tabacaru, 22<sup>nd</sup> International Conference on Cyclotrons and their Applications, Cape Town, South Africa (September 2019).

*Production and reacceleration of  $^{112}\text{In}$  with the Texas A&M light ion guide and charge breeding ECR*, **B.T. Roeder**, 2<sup>nd</sup> North American Charge-Breeding (NACB) workshop at TRIUMF, British Columbia, Canada (June 2019).

*Direct injection of radioactive  $I+$  ions into an ECRIS via a sextupole ion-guide*, **D.P. May**, **Invited talk**, G. Tabacaru, J. Arje, F.P. Abegglen, S. Molitor, and B.T. Roeder, 2<sup>nd</sup> North American Charge-Breeding Workshop, Vancouver, British Columbia, Canada (June 2019).

*Measuring  $|V_{ud}|$  and testing CKM unitarity: past, present & future*, **J.C. Hardy**, **Invited talk**, Workshop on the Current and Future Status of the First-Row CKM Unitarity, Amherst Center for Fundamental Interactions, University of Massachusetts Amherst, Amherst, Massachusetts (May 2019).

*Outlook for the determination of  $V_{ud}$* , **D. Melconian**, **Invited talk**, Workshop on Precise beta decay calculations for searches for new physics, ECT\*, Trento, Italy (April 2019).

*Outlook for the determination of  $V_{ud}$* , **D. Melconian**, **Invited talk**, Atomic nuclei as laboratories for BSM physics, ECT\*, Trento, Italy (April 2019).

*Angular correlation measurements at ISAC: using the atomic nucleus to search for BSM physics for 20 years*, **D. Melconian**, **Invited talk**, ISAC 20 Symposium, TRIUMF, Vancouver, British Columbia, Canada (August 2019).

*Status of the superallowed data set*, **D. Melconian**, **Invited talk**, Fundamental Symmetries Research with Beta Decay, The Institute for Nuclear Theory, Seattle, Washington, (November 2019).

*Polarized angular correlations in  $^{37}\text{K}$ : Recent results from TRINAT*, **D. Melconian**, **Invited talk**, APS Division of Nuclear Physics Meeting, Crystal City, Virginia (October 2019).

*Automation and computation of TAMUTRAP*, **M. Nasser**, CENTAUR SAC Meeting, Los Alamos National Laboratory, Los Alamos, New Mexico (August 2019).

*Automation and computation of TAMUTRAP*, **M. Nasser**, CENTAUR SAC Meeting, Los Alamos National Lab, Los Alamos, New Mexico (August 2019).

*$\beta$  decay simulations in TAMUTRAP*, **B. Schroeder**, CENTAUR Scientific Advisory Conference, Los Alamos National Laboratory, Los Alamos, New Mexico (August 2019).

*Automation and computation of TAMUTRAP*, **M. Nasser**, Stewardship Science Academic Programs 2020, Washington, DC (February 2020).

*Cyclotron radiation emission spectroscopy simulations with Kassiopeia*, **D. McClain**, CENTAUR SAC Meeting, Los Alamos National Laboratory, Los Alamos, New Mexico (August 2019).

*Cyclotron radiation emission spectroscopy in a Penning trap*, **D. McClain**, Stewardship Science Academic Programs 2020, Washington DC (February 2020).

*Prospects for discovery of the next superheavy element*, **C.M. Folden III**, **Invited talk**, Southwest Regional Meeting and Rocky Mountain Regional Meeting of the American Chemical Society, El Paso, Texas (November 2019)..

*Future of new, superheavy element discoveries*, **C.M. Folden III**, **Invited talk**, Southeast Regional Meeting of the American Chemical Society, Savannah, Georgia (October 2019).

*The next element: How chemists are expanding the periodic table*, **C.M. Folden III**, **Invited talk**, Featured expert for the American Chemical Society's webinar, Webinar (May 2019).

*A novel approach to medical radioisotope production using inverse kinematics*, **A. Bonasera**, **Invited talk**, MD Anderson Research Center, Houston, Texas (June 2019).

*Nuclear physics using lasers*, **A. Bonasera**, **Invited talk**, 10<sup>th</sup> European Summer School on Experimental Astrophysics, Catania, Italy (June 2019).

*Determining modern energy density functional for nuclear many-body systems*, **S. Shlomo**, **Invited talk**, Institute of Nuclear Research Workshop on nuclear Physics, Institute of Nuclear Research, Ukraine Academy of Science Kiev, Kiev, Ukraine (April 2019).

*Giant resonances in  $^{40,48}\text{Ca}$ ,  $^{68}\text{Ni}$ ,  $^{90}\text{Zr}$ ,  $^{116}\text{Sn}$ ,  $^{144}\text{Sm}$  and  $^{208}\text{Pb}$  and Properties of Nuclear Matter*, **S. Shlomo**, **Invited talk**, LXIX International Conference NUCLEUS-2019 on Nuclear Spectroscopy and Structure, JINR, Dubna, Russia (July 2019).

*Sensitivity of giant resonances energies of nuclei to properties of nuclear matter*, **S. Shlomo**, **Invited talk**, ECT\* Workshop on "Light clusters in nuclei and nuclear matter: Nuclear structure and decay, heavy-ion collisions, and astrophysics", ECT\*, Trento, Italy (September 2019).

*Sensitivity of giant resonances energies of nuclei to properties of nuclear matter*, **S. Shlomo**, **Invited talk**, 21<sup>st</sup> Colloque GANIL, Strassbourg, France (September 2019).

*Lecture series: Nuclear experimental techniques with rare isotope beams, **S. Ahn, Invited talk***, Exotic Beam Summer School 2019, Oak Ridge National Laboratory, Oak Ridge, Tennessee (June 2019).

*HabaNERO: A new experimental tool for the study of  $(\alpha, xn)$  reaction rates in the weak  $r$ -process, **S. Ahn***, Low Energy Community Meeting 2019, Duke University, Durham, North Carolina (August 2019).

*TexAT activities and idea to combine with HRS, **S. Ahn, Invited talk***, Low Energy Community Meeting 2019, Duke University, Durham, North Carolina (August 2019).

*Looking for states analogous to the  $^{12}\text{C}$  Hoyle state in heavier nuclei, **M. Barbui, Invited talk***, Light clusters in nuclei and nuclear matter: Nuclear structure and decay, heavy ion collisions and astrophysics, ECT\* European center for theoretical studies in nuclear physics and related areas, Trento, Italy (September 2019).

*Advanced technique for investigation of the properties of Superheavy nuclei, **G. Chubaryan, Invited talk***, The present and the future of the Periodic Table of Chemical Elements, Flerov Laboratory of Nuclear Research, JINR, Dubna, Russia (May 2019).

*New era of resonance reaction studies, **V.Z. Goldberg, Invited talk***, 69<sup>th</sup> International Conference Nucleus-2019 on Nuclear Spectroscopy and Nuclear Structure Fundamental Problems of Nuclear Physics, Nuclei at Borders of Nucleon Stability, Joint Institute for Nuclear Research, Dubna, Russia (July 2019).

*A nucleation model analysis of neck emission yields in heavy ion reactions, **J. Gauthier***, Light clusters in nuclei and nuclear matter: Nuclear structure and decay, heavy ion collisions, and astrophysics (ECT Workshop 2019), ECT\*, Trento, Italy (September 2019).

*Investigation of the decomposition of dilute nuclear matter, **K. Hagel, Invited talk***, Challenges to Transport Theory for Heavy-Ion Collisions, ECT\*, Trento, Italy (May 2019).

*TexAT: Experiments with modified TPC detector, **Y. Koshchiy, Invited talk***, Brown-bag Lunch Series, Cyclotron Institute, Texas A&M University, College Station, Texas (June 2019).

*Precise  $\alpha_K$  and  $\alpha_T$  internal conversion coefficients measurements of 39.752(6)-keV E3 transition in  $^{103m}\text{Rh}$ : Test of internal conversion theory, **N. Nica, Invited talk***, “Horia Hulubei” National Institute of Physics and Nuclear Engineering, Bucharest, Romania (April 2019).

*Progress report on nuclear structure and decay data activities at Texas A&M University, **N. Nica***, 23<sup>rd</sup> Technical Meeting of the Nuclear Structure and Decay Data Network, IAEA Vienna, Vienna, Austria (April 2019).

*Code GABS: %I $\gamma$  calculation when I $\gamma$  normalization (NR) is known, **N. Nica***, 23<sup>rd</sup> Technical Meeting of the Nuclear Structure and Decay Data Network, IAEA Vienna, Vienna, Austria (April 2019).

*Code PANDORA and ENSDF consistency checking: Modify to get both “ $\gamma$ from level” and “ $\gamma$ to level listings”, **N. Nica***, 23<sup>rd</sup> Technical Meeting of the Nuclear Structure and Decay Data Network, IAEA Vienna, Vienna, Austria (April 2019).

*Precise  $\alpha_K$  and  $\alpha_T$  internal conversion coefficients measurements of 39.752(6)-keV E3 transition in  $^{103m}\text{Rh}$ : Test of internal conversion theory, **N. Nica***, 23<sup>rd</sup> Technical Meeting of the Nuclear Structure and Decay Data Network, IAEA Vienna, Vienna, Austria (April 2019).

*Precise  $\alpha_K$  and  $\alpha_T$  internal conversion coefficients measurements of 39.752(6)-keV E3 transition in  $^{103m}\text{Rh}$ : Test of internal conversion theory, **N. Nica**, 2019 International Conference on Nuclear Data for Science and Technology, Beijing, China (May 2019).*

*Precise  $\alpha_K$  internal conversion coefficients measurements of 30.77-keV M4 transition in  $^{93m}\text{Nb}$ : Last test of internal conversion theory, **N. Nica**, US National Nuclear Data Week 2019, National Nuclear Data Center, Brookhaven National Laboratory, Upton, New York (November 2019).*

*Texas A&M University US nuclear data program TAMU NSDD CENTER Report 2019, **N. Nica**, US National Nuclear Data Week 2019, National Nuclear Data Center, Brookhaven National Laboratory, Upton, New York (November 2019).*

*Reaction experiments with exotic beams (lecture part 1), **A. Saastamoinen**, **Invited talk**, Exotic Beam Summer School 2019, Oak Ridge National Laboratory, Oak Ridge, Tennessee (June 2019).*

*Reaction experiments with exotic beams (lecture part 2), **A. Saastamoinen**, **Invited talk**, Exotic Beam Summer School 2019, Oak Ridge National Laboratory, Oak Ridge, Tennessee (June 2019).*

*Breakup of  $^9\text{C}$  and  $^{66}\text{Se}$  at RIKEN, **A. Saastamoinen**, **Invited talk**, Cyclotron Institute Brown Bag Lunch Series, Texas A&M University, Cyclotron Institute, College Station, Texas (April 2019).*

*Gas cell for TAMUTRAP: Texas A&M University Penning trap facility, **P. Shidling**, **Invited talk**, Brown-bag lunch series, Cyclotron Institute, Texas A&M University, College Station, Texas (May 2019).*

*Surface functionalization towards nihonium homologs adsorption study, **E. Tereshatov**, 6<sup>th</sup> International Conference on the Chemistry and Physics of the Transactinide Elements, Wilhelmshaven, Germany (August 2019).*

*Hydrophobic ionic liquids and eutectic mixtures in metals separation: behavior of medical indium and thallium radionuclides, **E. Tereshatov**, 4<sup>th</sup> International Conference on Ionic Liquids in Separation and Purification Technology, Sitges, Spain (September 2019).*

*Exploring multinucleon transfer for super-heavy element formation, **A. Hood**, Stewardship Science Academic Programs (SSAP) Symposium 2020, Washington D.C. (February 2020).*

*Upgrades to the radiation effects facility at the Texas A&M University Cyclotron Institute, **H.L. Clark**, **Invited talk**, SEE Symposium, La Jolla, California (May 2019).*

*Status of the radiation effects facility at the Texas A&M University Cyclotron Institute, **H.L. Clark**, **Invited talk**, SEE Symposium, La Jolla, California (May 2019).*

*STAR spin: Present and future, **C.A. Gagliardi**, **Invited talk**, Workshop QCD Phys. Study QCD Phase Diagram, Weihai, China (July 2019).*

*STAR status, plans, and upgrades, **C.A. Gagliardi** (for the STAR Collaboration), **Invited talk**, Ann. Meet. Nucl. Phys. Div. APS (DNP 2019), RHIC Town Meeting, Arlington, Virginia (October 2019).*

*Probing gluon polarization in the proton with jets at STAR, **C.A. Gagliardi** (for the STAR Collaboration), Ann. Meet. Nucl. Phys. Div. APS (DNP 2019), Arlington, Virginia (October 2019).*

*Azimuthal transverse single-spin asymmetries of charged pions within jets from polarized pp collisions at  $\sqrt{s}=200$  GeV, **T. Lin** (for the STAR Collaboration), Ann. Meet. Nucl. Phys. Div. APS (DNP 2019), Arlington, Virginia (October 2019).*

*Chiral kinetic study of chiral magnetic and vortical effects in HIC, **C.M. Ko, Invited talk**, The 5<sup>th</sup> Workshop on Chirality, Vorticity and Magnetic Field in Heavy Ion Collisions, Beijing, China (April 2019).*

*Recent measurements of heavy quarkonium production in p+Au and p+p collisions at STAR, **Y. Liu**, Quark Matter 2019 - the XXVIIIth International Conference on Ultra-relativistic Nucleus-Nucleus Collisions, Wuhan, China (May 2019).*

*Reconstruction of neutral-triggered charged recoil jets in  $\sqrt{s}=200$  GeV p+p collisions at the STAR experiment, **D. Anderson**, XLIX International Symposium on Multi-particle Dynamics, Santa Fe, New Mexico (September 2019).*

*Centrality determination for p+Au collisions at  $\sqrt{s_{NN}} = 200$  GeV at the STAR experiment, **Y. Liu**, XLIX International Symposium on Multiparticle Dynamics, Santa Fe, New Mexico (September 2019).*

*Chiral kinetic study of chiral magnetic and vortical effects in HIC, **C.M. Ko, Invited talk**, The 5<sup>th</sup> Workshop on Chirality, Vorticity and Magnetic Field in Heavy Ion Collisions, Beijing, China (April 2019).*

*Fifty years of scientific career and the history of AMPT, **C.M. Ko, Invited talk**, International Workshop on Partonic and Hadronic Transport Approaches for Relativistic Heavy Ion Collisions, Dalian, China (May 2019).*

*In-medium effects on pion production, **C.M. Ko, Invited talk**, Challenges to Transport Theory for Heavy-Ion Collisions, Trento, Italy (May 2019).*

*Effects of vorticity in relativistic heavy ion collisions, **C.M. Ko, Invited talk**, The 7<sup>th</sup> International Symposium on Non-equilibrium Dynamics, Castiglione della Pescaia, Grosseto, Italy (June 2019).*

*Transport model study of chiral magnetic effects, **C.M. Ko, Invited talk**, Workshop on the Study of QCD Phase Diagram and New-type Topologic Effect, Weihai, China (July 2019).*

*Light nuclei as a probe of the QCD phase diagram, **C.M. Ko, Invited talk**, Workshop on the Study of QCD Phase Diagram and New-type Topologic Effect, Weihai, China (July 2019).*

*Nuclear matter properties at finite temperature from effective interactions, **C.M. Ko, Invited talk**, The 9<sup>th</sup> International Symposium on Nuclear Symmetry Energy, Da Nang, Vietnam (September/October 2019).*

*Coalescence production of (anti-)(hyper-)nuclei in ultra-relativistic heavy-ion collisions, **C.M. Ko, Invited talk**, Third EMMI Workshop on Anti-Matter, Hyper-Matter and Exotic Production at the LHC, Wroclaw, Poland (December 2019).*

*The coalescence model for particle production, **C.M. Ko, Invited talk**, Central China Normal University, Wuhan, China (June 2019).*

*Light nuclei yield ratio and nucleon density fluctuations*, **C.M. Ko**, **Invited talk**, Central China Normal University, Wuhan, China (June 2019).

*Density fluctuation in baryon-rich quark matter*, **C.M. Ko**, **Invited talk**, Central China Normal University, Wuhan, China (June 2019).

*Light Nuclei Production in Relativistic Heavy Ion Collisions*, **C.M. Ko**, **Invited talk**, Fudan University, Shanghai, China (July 2019).

*Equation of state, single-particle potential and response of dense matter*, **J.W. Holt**, **Invited talk**, INT-JINA workshop: Dense Matter and Neutron Star Mergers, Seattle, Washington (December 2019).

*Nucleon-nucleus optical potentials from chiral nuclear forces*, **J.W. Holt**, **Invited talk**, 4<sup>th</sup> International Workshop on Quasi-Free Scattering with Radioactive-Ion Beams, Maresias, Brazil (October 2019).

*Nuclear many-body theory from microscopic chiral 2N and 3N forces*, **J.W. Holt**, **Invited talk**, APCTP Focus Program in Nuclear Physics 2019 “Nuclear Many-Body Theories: Beyond the Mean Field Approaches”, Pohang, South Korea (July 2019).

*Vertex corrections to dynamical response functions of neutron matter*, **J.W. Holt**, **Invited talk**, INT-JINA workshop on weak interactions for astrophysics, Seattle, Washington (June 2019).

*Hot and dense matter in supernovae and neutron star mergers*, **J.W. Holt**, **Invited seminar**, Nuclear science seminar, Michigan State University, East Lansing, Michigan (September 2019).

*Microscopic optical potentials from chiral nuclear forces*, **J.W. Holt**, **Invited seminar**, Nuclear theory seminar, Michigan State University, East Lansing, Michigan (September 2019).

*Hadronization*, **R.J. Fries**, **Invited talk**, EMMI Rapid Response Task Force: The Space-Time Structure of Jet Quenching, GSI, Darmstadt, Germany (August 2019).

*Hadronization*, **R.J. Fries**, **Invited talk**, 3rd International thing on QCD Challenges, Lund University, Lund, Sweden (August 2019).

*Hybrid hadronization*, **R.J. Fries**, Quark Matter 2019, Wuhan, China (November 2019).

*Shear viscosity of hot hadronic matter*, **R.J. Fries**, APS DNP Fall Meeting, Arlington, Virginia (October 2019).

*Heavy-flavor probes of hot QCD matter*, **R. Rapp**, **Invited talk**, APS April Meeting, Denver, Colorado (April 2019).

*Brownian motion of heavy quarks and the strongly coupled quark-gluon plasma*, **R. Rapp**, **Invited talk**, Physics Colloquium, Technical University Darmstadt, Darmstadt, Germany (July 2019).

*Open issues in open heavy-flavor physics in high-energy nuclear collisions*, **R. Rapp**, **Invited talk**, Third International ping on QCD Challenges from pp to AA, Lund University, Lund, Sweden (August 2019).

*Heavy flavor in nuclear collisions -- Part I: focus on open heavy favor*, **R. Rapp**, **Invited talk**, Third International ping on QCD Challenges from pp to AA, Lund University, Lund, Sweden (August 2019).

*Using machine learning to extract properties of systems of particles*, **E. Gulian** (REU Student), APS DNP Fall Meeting, Arlington, Virginia (October 2019).