

INT Workshop INT 15-58W

Reactions and Structure of Exotic Nuclei

March 2 – March 13, 2015

Monday, March 2, 2015

ALL TALKS WILL BE IN ROOM C-520

8:00am	Registration in Room C-411	
9:20am	Welcome	David Kaplan, INT Director
9:30am	Intro Remarks, Organizational Details, & LENP/Astro White Paper	Charlotte Elster, Ohio University
9:45am	Ab Initio Unified Approach to Nuclear Structure and Reactions	Petr Navratil, TRIUMF
10:30am	COFFEE BREAK	
11:00am	The $T(T,3n)\alpha$, $T(3\text{He},np)\alpha$, $3\text{He}(3\text{He},2p)\alpha$ Reactions at Low Energies	Carl Brune, Ohio University
11:45am	Computations of Medium-Mass Nuclei, Nuclear Interactions and Saturation	Thomas Papenbrock, University of Tennessee
12:30pm	LUNCH	
2:00pm	Symmetry-adapted no-core shell model and its application to open-shell intermediate mass nuclei	Kristina Launey, Louisiana State University
2:45pm	Quasi-free Knockout Reactions Studies at RIBF	Tomohiro Uesaka, RIKEN
3:30pm	COFFEE BREAK	
4:00pm	Complex Scaling with realistic interactions and the No Core Gamov Shell Model	Georgios Papadimitriou, Iowa State University
4:45pm	Light Nuclei in Effective Field Theory	Chen Ji, TRIUMF
5:30pm	OPEN DISCUSSION	

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Tuesday, March 3, 2015

9:00am	Quantum Monte Carlo Calculations of Reaction and Scattering Processes	Kenneth Nollett, University of South Carolina
9:45am	Ab Initio Theories of Medium Mass Isotopes and the Role of 3NFs at Large Asymmetries	Carlo Barbieri, University of Surrey
10:30am	COFFEE BREAK	
11:00am	Probing Nucleon Correlations and Neutron-Proton Correlations using Transfer and Knockout Reactions	Jenny Lee, The University of Hong Kong
11:45am	Indirect Reaction Studies for Astrophysics at CMU	Georgios Perdikakis, Central Michigan University
12:30pm	LUNCH	
2:00pm	Towards Ab Initio Calculations of Dipole Strength in Exotic Nuclei	Sonia Bacca, TRIUMF
2:45pm	Direct, Semi-Direct, and Resonant Neutron Capture	Goran Arbanas, Oak Ridge National Laboratory
3:30pm	COFFEE BREAK	
4:00pm	Self-Consistent and Relativistic Study of Nuclear Spin-Isospin Resonances	Haozhao Liang, RIKEN
4:45pm	Ab Initio Many-Body Calculations of Single Nucleon Transfer Reactions, Application to $7\text{Li}(d,p)8\text{Li}$	Francesco Raimondi, TRIUMF
5:30pm	OPEN DISCUSSION	

Wednesday, March 4, 2015

9:00am	Coupled Reaction Channels Calculations based on FRESCO	Ian Thompson, Lawrence Livermore National Laboratory
9:45am	Coupled-Cluster Calculations of Nuclear Structure and Reactions in Medium Mass Nuclei from Chiral Interactions	Gaute Hagen, Oak Ridge National Laboratory
10:30am	COFFEE BREAK	
11:00am	Nuclear Reaction Rate Needs for Heavy Element Nucleosynthesis	Rebecca Surman, University of Notre Dame
11:45am	Experimental Results on Quasifree Scattering Reactions in Inverse Kinematics	Stefanos Paschalis, T U Darmstadt
12:30pm	LUNCH	
2:00pm	OPEN DISCUSSION & FREE TIME (Held in room C-421)	
6:30pm	WORKSHOP DINNER	

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Thursday, March 5, 2015

9:00am	Interplay of Direct, Pre-Equilibrium, and Compound Processes in Nuclear Reactions	Jutta Escher, Lawrence Livermore National Lab
9:45am	Radioactive Capture Reactions with Exotic Nuclei	Barry Davids, TRIUMF
10:30am	COFFEE BREAK	
11:00am	Reactions and Structure employing the DOM in a broader context	Willem Dickhoff, Washington University
11:45am	Microscopic Nucleon-Nucleus Optical Potentials from Chiral Forces	Jeremy Holt, University of Washington
12:30pm	LUNCH	
2:00pm	Microscopic Folding Optical Potentials and Connections to the NCSM Structure Description	Charlotte Elster, Ohio University
2:45pm	Elastic Scattering and other Reaction Data for DOM analysis including nucleon Knockout to Continuum States	Robert Charity, Washington University
3:30pm	COFFEE BREAK	
4:00pm	Nonlocal Dispersive Optical Model	Hossein Mahzoon, Washington University in St. Louis
4:45pm	Towards Optical Potentials from Coupled Cluster Calculations	Jimmy Rotureau, Michigan State University
5:30pm	OPEN DISCUSSION	

Friday, March 6, 2015

9:00am	Reaction Spectroscopy using High and Low Energy Beams	Rituparna Kanungo, Saint Mary's University
9:45am	Constraining Astrophysical Reaction Rates with Transfer Reactions at Low and Intermediate Energies	Christoph Langer, NSCL
10:30am	COFFEE BREAK	
11:00am	Deuteron Induced Reactions	Gregory Potel Aguilar, MSU/LLNL
11:45am	Faddeev Techniques as Tool to Study Reactions with Exotic Nuclei	Vasily Eremenko, Ohio University
12:30pm	LUNCH	
14:00pm	Microscopic Approach of Nucleus-Nucleus Bremsstrahlung	Jérémy Dohet-Eraly, TRIUMF
14:45pm	Workshop Closing Remarks	Program Organizers

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