

# From Few-Nucleon Forces to Many-Nucleon Structure

ECT\* / HIC for FAIR Workshop – June 10<sup>th</sup> – 14<sup>th</sup>, 2013

	Monday, June 10 <sup>th</sup> Chiral EFT / Few-Body	Tuesday, June 11 <sup>th</sup> Chiral EFT / Monte Carlo	Wednesday, June 12 <sup>th</sup> Light Nuclei / Few-Body	Thursday, June 13 <sup>th</sup> Medium-Mass / Matter	Friday, June 14 <sup>th</sup> Many-Body
<i>Chair</i>	<i>R. Roth</i>	<i>R. Machleidt</i>	<i>D. Lee</i>	<i>J. Vary</i>	<i>R. Roth</i>
<b>9:00</b>	<b>Arrival &amp; Registration</b>	<b>D. Lee</b> <i>Nuclear Structure and Excitations from Lattice Effective Field Theory</i>	<b>N. Kalantar</b> <i>What Have We Learned about Three-Nucleon Systems at Intermediate Energies?</i>	<b>G. Hagen</b> <i>Nuclear Structure and Reactions from Coupled Cluster Theory</i>	<b>A. Covello</b> <i>Shell-Model Calculations with Realistic Low-Momentum Two-Body Effective Interactions</i>
<b>9:30</b>	<b>Opening Remarks</b>				
<b>9:45</b>	<b>E. Epelbaum</b> <i>New Developments in Chiral EFT for Nuclear Forces</i>	<b>A. Schwenk</b> <i>Nuclear Forces and Neutron-Rich Systems</i>	<b>P. Maris</b> <i>No-Core Configuration Interaction Calculations for p-Shell Nuclei</i>	<b>S. Binder</b> <i>Coupled-Cluster Calculations for Medium-Mass Nuclei</i>	<b>K. Moghabi</b> <i>Perturbative Treatment of the Many-Body Problem in Nuclear Matter</i>
<b>10:30</b>	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>
<b>11:00</b>	<b>D. Entem</b> <i>Infinite Cutoff Regularization of Chiral NN Forces</i>	<b>K. Hebeler</b> <i>Neutron-Rich Matter from Chiral EFT Interactions</i>	<b>P. Navrátil</b> <i>Ab Initio Calculations of Bound and Unbound States</i>	<b>H. Hergert</b> <i>In-Medium SRG with Chiral NN+3N Interactions</i>	<b>P. Vesely</b> <i>Selfconsistent Mean Field Calculations of the Nuclear Response...</i>
<b>11:45</b>	<b>H. Krebs</b> <i>Chiral Nuclear Forces with Explicit Deltas</i>	<b>A. Calci</b> <i>Similarity Renormalization Group and Next Generation Chiral Interactions</i>	<b>J. Langhammer</b> <i>Chiral 3N Forces in Ab-Initio Nuclear Spectroscopy and Reactions</i>	<b>G. Papadimitriou</b> <i>(No-core) Gamow Shell Model Calculations of Weakly Bound Nuclei</i>	<b>Closing Remarks</b>
<b>12:30</b>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
<i>Chair</i>	<i>B. Barrett</i>	<i>A. Schwenk</i>	<i>P. Navrátil</i>	<i>G. Hagen</i>	
<b>14:00</b>	<b>W. Tornow</b> <i>Unsolved Problems in Few-Nucleon Scattering at Low Energies</i>	<b>T. Otsuka</b> <i>Shapes of Medium-Mass Exotic Nuclei and MCSM Calculations</i>	<b>J. Vary (ECT* Colloquium)</b> <i>Perspectives on the Origins of Nuclear Structure</i>	<b>C. Barbieri</b> <i>Three-Nucleon Forces in Neutron Rich and Open-Shell Isotopes</i>	
<b>14:45</b>	<b>H. Witala</b> <i>3N Reactions with Chiral Forces</i>	<b>T. Abe</b> <i>Monte Carlo Shell Model Towards ab initio Nuclear Structure</i>	<b>T. Varese</b> <i>Renormalization of N<sup>3</sup>LO Chiral Potentials with Multiple Subtractions</i>	<b>J. Holt</b> <i>Microscopic Optical Potential from Chiral Two- and Three-Body Forces</i>	
<b>15:30</b>	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>	
<b>16:00</b>	<b>G. Orlandini</b> <i>Integral Transform Approaches for Reactions in the Continuum</i>	<b>A. Mukherjee</b> <i>Quantum Monte Carlo in the Configuration Interaction Framework</i>	<b>A. Deltuva</b> <i>Four-Nucleon Reactions</i>	<b>F. Sammarruca</b> <i>A Comparison between Different Microscopic Approaches to Neutron-Rich Matter</i>	
<b>16:45</b>	<b>W. Leidemann</b> <i>The Lorentz Integral Transform and Resonances</i>	<b>E. Ruiz Arriola</b> <i>Towards an Estimation of Nuclear Forces and Nuclear Matrix Elements Uncertainties: Chiral vs Non-Chiral</i>	<b>M. Viviani</b> <i>Effect of 3N Forces in A=4 Scattering</i>	<b>L. Coraggio</b> <i>Study of Regulator Dependence of Chiral Potentials in Calculations for Infinite Nuclear Matter</i>	
<b>19:30 or 20:00</b>	<b>Welcome Dinner @ ECT*</b>	<b>Dinner @ La Baracca</b>	<b>Dinner @ Hotel America</b>	<b>Soc. Dinner @ Orso Grigio</b>	<b>Pizza @ Alla Mostra</b>