

JINA Frontiers Meeting, October 7th-8th, 2012

National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI



NOCL		J I N
		Sunday, October 7th, 2012
8.00am-9.00am		Registration
9.00am-10.00am		Chair: Richard Cyburt
Laurens Keek	Michigan State University	Superburst ignition on neutron stars
Jeremy Stevens	Michigan State University	Sensitivity of Carbon Synthesis in Accreting Neutron Stars to Reaction Rate and Network Parameter Variations
Andrew Steiner	INT/U. Washington	The Accreted Neutron Star Crust and the Nuclear Symmetry Energy
10.00am-10.30am		Coffee break
10.30am-11.30am		Chair: Richard Cyburt
Daniel Coupland	MSU/NSCL	Density dependence of the symmetry energy with emitted neutrons and protons
Simin Mahmoodifar	University of Maryland	Impact of r-mode oscillations on the cooling of neutron stars
Alex Deibel	Michigan State University	Magnetar Oscillations: Observing the Physics of the Magnetized Neutron Star Crust
Ernazar Abdikamalov	California Institute of Technology	Correlated gravitational wave and neutrino signals from general-relativistic rapidly rotating iron core collapse
11.30am-1.00am		Lunch (Snyder/Phillips Dining Hall)
1.00pm-2.00pm		Chair: Xiao-Dong Tang
Athira Menon	University of Victoria	RCB stars - the aftermath of long term post-merger nucleosynthesis of a coalesced double- degenerate (He+CO) system
Marco Pignatari	University of Basel	The slow neutron capture process in intermediate mass stars: warnings and perspectives
Thomas Rauscher	University of Basel	A solution to the gamma-process alpha-potential mystery
Grant Mathews	University of Notre Dame	Frontiers in Big Bang Cosmology and Nucleosynthesis
2.00am-2.30am		Coffee break
2.30pm-4.45pm		Chair: Remco Zegers
Manoel Couder	University of Notre Dame	Studying radiative capture with recoil separators
Sunil Devi	Indiana University South Bend	Detection system for the St. George recoil mass separator.
Wenting Lu	University of Notre Dame	Zr-Nb isobar separation for the 93Zr AMS measurement
Andreas Best	University of Notre Dame/LBNL	Neutron background characterization of deep underground laboratories
Zbigniew Chajecki	NSCL/MSU	Fission barriers for heavy exotic nuclei
Karen Ostdiek	University of Notre Dame	Complications in the measurement of the half life of Iron-60
Fang Xiao	University of Notre Dame	Experimental investigations of stellar 12C+12C fusion toward extremely low energies by direct and indirect methods
Yunju Li	University of Notre Dame	How to measure the fusion cross sections for 12C + 12C reaction at astrophysical energies?

5.00pm-7.00pm

Poster Session

Monday, October 8th, 2012			
9.00am-10.00am		Chair: Thomas Rauscher	
Anne Sallaska	UNC/TUNL	STARLIB: A Next-Generation Reaction-Rate Library for Nuclear Astrophysics	
Pavel Denisenkov	University of Victoria	MESA/NuGrid Models of Nova Outbursts and Nucleosynthesis	
Carolyn Peruta	Michigan State University	Limitations in Modeling Galactic Chemical Evolution Due to Uncertainties in Stellar Evolution Calculations	
10.00am-10.30am		Coffee break	
10.30am-11.30am		Chair: Thomas Rauscher	
Richard deBoer	University of Notre Dame	Comprehensive Analysis of 160 Compound Nucleus Reactions	
Matt Bowers	University of Notre Dame	Implications of the 33S(α ,p)36Cl reaction on Early Solar system production	
Yoav Kashiv	University of Notre Dame	A Shorter Measured 146Sm Half-Life and Implications for 146Sm-142Nd Chronology in the Solar System	
Ethan Uberseder	University of Notre Dame	First Experimental Constraint on the 59Fe(n, γ)60Fe Reaction via Coulomb Dissociation	
11.30am-1.00am Lunch (Akers Hall)			
1.00pm-3.00pm		Chair: Georgios Perdikakis	
Catherine Deibel	Louisiana State University	When Stars Go BOOM: Explosive Nucleosynthesis	
Chris Wrede	MSU/NSCL	Nova nucleosynthesis via beta delayed gamma decay at NSCL	
Sergio Almarez- Calderon	Argonne National Laboratory	The level structure of 30S and its astrophysical implications	
Christoph Langer	NSCL	Experimental investigations of important bottleneck reactions in the rp process	
Alexander Long	University of Notre Dame	Measurements of Resonance States in 30S and 38Ca Nuclei using the (p,t) Reaction, and Reaction Rates in the αp -Process	
Justyna Marganiec	EMMI/GSI	Coulomb breakup of 17Ne and the 15O(2p, γ)17Ne cross section.	
Qian Li	University of Notre Dame	The Cross Section of 14N(p, γ)15O	
3.00am-3.30am		Coffee break	
3.30pm-5.00pm		Chair: Chris Wrede	
Stephen Quinn	Michigan State University	Cross section measurements of (p,γ) reactions using the SuN detector	
Matthew Mumpower	University of Notre Dame	The Rare Earth Peak: An Overlooked r-Process Diagnostic	
Jorge Pereira	NSCL	Inferring nuclear structure trends of r-process nuclei from beta-decay measurements	
David Chamulak		Nucleosynthesis from Asymmetrical Explosions in Type Ia Supernovae	
Yeunjin Kim	University of Chicago	Detonations in Helium Layers of White Dwarf	
Rashi Talwar	University of Notre Dame	Stellar neutron sources and s-Process in Massive Stars	