

**530. WE-Heraeus-Seminar:
Nuclear masses and nucleosynthesis**

Physikzentrum Bad Honnef, 23-26 April, 2013

Tuesday 23 April

16:00-16:15	Organizers	Welcome
16:15-17:00	A. Aprahamian	Nuclear Mass sensitivities and the r-process: F-spin
17:00-17:45	D. Lunney	Problems with mass models for heavy nuclei
17:45-18:30	H. Schatz	Nuclear masses in astrophysics
18:30-19:00	All	Discussion (A. Arcones, K. Blaum)
19:00-...	All	Get together and buffet supper

Wednesday 24 April

9:00-9:45	F.K. Thielemann	How to disentangle the influence of mass model and astrophysical environment conditions, responsible for producing the r-process abundance pattern(s)
9:45-10:30	R. Hix	Multidimensional Supernova Simulations with CHIMERA
10:30-11:00	Coffee Break	
11:00-11:45	G. McLaughlin	The role of neutrinos in the formation of the elements
11:45-12:30	G. Martinez-Pinedo	Nuclear physics input for r-process: nuclear masses
12:30-14:00	Lunch Break	
14:00-14:30	L. Caballero	Global effects of beta decay rates on the r-process nucleosynthesis

14:30-15:00	A. Estrade	Nuclear masses and nuclear processes in the crust of neutron stars
15:00-15:30	R. Wolf	ISOLTRAP's multi-reflection time-of-flight mass separator/spectrometer
15:30-16:00	Coffee Break	
16:00-17:00	All	Discussion (Lead: K. Langanke)
17:00-18:00	Poster presentations	2 - 5 minutes talk per poster
18:00-19:00	All	Poster Session
19:00-...	All	Welcome dinner and social evening

Thursday 25 April

9:00-9:45	J. Dilling	Penning-trap mass measurements at TRIUMF
9:45-10:30	Y. Litvinov	Storage Ring Mass Measurements
10:30-11:00	Coffee Break	
11:00-11:45	P. Möller	The new Finite-Range Droplet-Model mass table FRDM(2012)
11:45-12:30	A. Zuker	The Duflo Zuiker mass model(s) and the three body issue
12:30-14:00	Lunch Break	
14:00-14:45	S. Goriely	Microscopic mass models for astrophysics
14:45-15:30	G. Savard	Mass measurements along the r-process path at CARIBU
15:30-16:00	Coffee Break	
16:00-16:45	D. Vretenar	Relativistic energy density functionals and applications
16:45-17:15	V. Simon	Reducing nuclear physics uncertainties in r-process models – mass spectrometry of radioactive, highly charged ions

17:15-17:45	Z. Meisel	Recent Results in Time-of-Flight Mass Measurement
17:45-18:30	All	Discussion (Lead: K. Blaum)

Friday 26 April

9:00-9:45	S. Rosswog	Compact binary mergers as possible production sites of heavy nuclei
9:45-10:30	N. Pillet	Nuclear long range correlations with the multiparticle-multihole Gogny energy density functional
10:30-11:00	Coffee Break	
11:00-11:45	S. Kreim	Stellar processes viewed through mass measurements with ISOLTRAP
11:45-12:30	S. George	Recent technical advances in Penning trap mass spectrometry
12:30-14:00	Lunch Break	
14:00-14:45	M. Bender	Mass models based on self-consistent mean fields: Role of explicit correlations
14:45-15:30	A. Jokinen	Mass measurements with IGISOL
15:30-16:00	Coffee Break	
16:00-16:45	G. Bollen	Penning trap mass measurements of rare isotopes from projectile fragmentation at NSCL now and FRIB in the future
16:45-17:30	T. R. Rodriguez	Convergence and correlations in nuclear masses calculated with energy density functional methods
17:30-18:30	All	Discussion (A. Arcones)