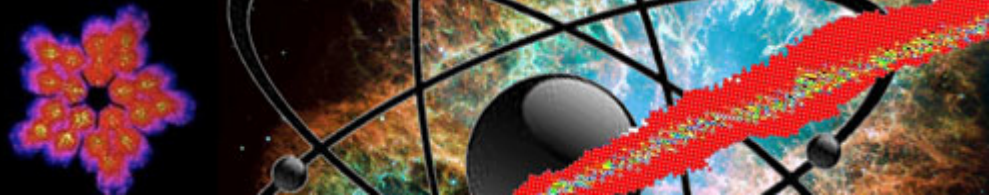




Member of the US Nuclear Data Program

Report on Nuclear Structure 2012 & LE Community Meeting

kondev@anl.gov



It was the 14th in the series of biennial conferences organized by one of the North American National Laboratories. Previous conferences have been hosted by Argonne National Laboratory, Lawrence Berkeley National Laboratory, Chalk River Laboratories, the National Superconducting Cyclotron Laboratory, and Oak Ridge National Laboratory.

The scientific program was devoted to the latest research and development in experimental and theoretical Nuclear Structure Physics, with emphasis on the properties of nuclei at the extremes of isospin, mass, angular momentum, and excitation energy.





August 13-17, 2012
Argonne National Laboratory

Nuclear Structure 2012

total presentations: 72

Invited: 9

Facility/Instrumentation: 11

Posters: 81 – poster competition –
10 min presentation

Local Organizing Committee

International Advisory Committee

May 1, 2012
Abstract Submittal
Deadline

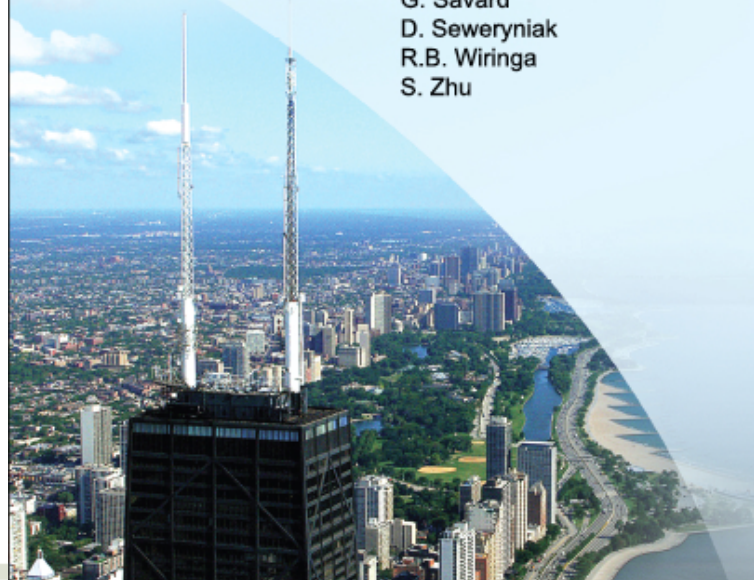
July 1, 2012
Early Registration
Deadline

- B.B. Back
- M.P. Carpenter
- J.A. Clark
- J. Glover (Secretary)
- T.L. Khoo
- F.G. Kondev (Co-chair)
- T. Lauritsen (Co-chair)
- C.J. Lister
- P. Müller
- K.E. Rehm
- G. Savard
- D. Seweryniak
- R.B. Wiringa
- S. Zhu

- D. Ackerman (GSI, Germany)
- A. Aprahamian (U. Notre Dame, USA)
- R.A. Bark (iThemba, South Africa)
- B. Blank (CENBG, France)
- R.F. Casten (Yale U., USA)
- B. Cederwall (KTH, Sweden)
- J.A. Cizewski (Rutgers U., USA)
- G. de Angelis (INFN, Italy)
- P. Fallon (LBNL, USA)
- S.J. Freeman (U. Manchester, UK)
- A. Gade (MSU, USA)
- P.E. Garrett (U. Guelph, Canada)
- D.J. Hartley (U.S. Naval Academy, USA)
- R. Julin (JYFL, Finland)
- R. Krücken (TRIUMF, Canada)
- G.J. Lane (ANU, Australia)
- W. Nazarewicz (UT & ORNL, USA)
- T. Otsuka (U. Tokyo, Japan)
- R. Palit (TIFR, India)
- W. Reviol (Washington U., USA)
- M.A. Riley (FSU, USA)
- H. Sakurai (RIKEN, Japan)
- P. Van Duppen (KU Leuven, Belgium)
- R. Wadsworth (U. York, UK)
- F.R. Xu (Peking U., China)

207 registered
149 staff/prof.
58 students (28%)

195 attended
(+250 Fri)
141 staff/prof.
54 students (28%)

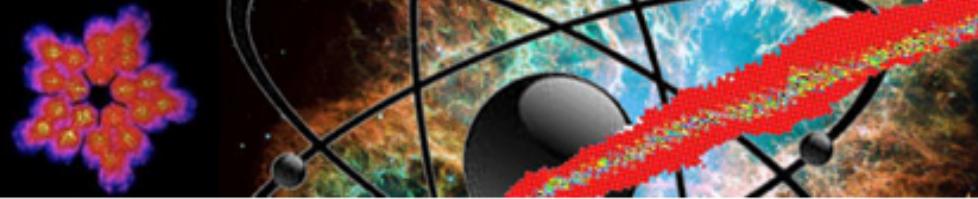



<http://ns12.anl.gov/>



Nuclear Structure 2012

Argonne National Laboratory, August 13-17, 2012



- » **NS12 Home**
- » Committees
- » Announcements
- » Program
 - » Presentations
 - » Posters
- » Participants
 - » Participants List 
 - » Group Photo
- » Attendee's Resources
- » Contact Organizers

Nuclear Structure 2012 (NS12)

August 13-17, 2012, Argonne National Laboratory
Forefront research in experimental and theoretical Nuclear Physics



ns12.anl.gov



Attendee's Resources



Links to several databases and other useful resources:

- [ENSDF \(database\)](#)
- [XUNDL \(database\)](#)
- [NSR \(database\)](#)
- [LiveChart \(ensdf search and plot\)](#)
- [NuDat \(ensdf search\)](#)
- [LBNL \(Isotope Project\)](#)
- [TUNL \(Nuclear Data/light nuclei with A<20\)](#)
- [NRV](#)

• Atomic Masses:

- [AMDC](#)
- [nuclearmasses.org](#)

• Nuclear Astrophysics Data:

- [nucastrodata.org](#)
- [P. Moller collection at t2.lanl.gov](#)

• [Q value Calculator](#)

• [ICC Calculator](#)

NS12 Program as of Wednesday, 29-Aug-2012 04:04:06 CDT		Download Schedule as PDF	
	Title	Presenter	Affiliation
August 12, Sunday at the Argonne Guest House (see Venue)			
6.00 pm – 8.00 pm	Registration at the Argonne Guest House		
7.00 pm – 9.00 pm	Reception at the Argonne Guest House		
August 13, Monday at the APS Auditorium (see Venue)			
Chair: A. Wuosmaa (WMU)			
9.00 am – 9.10 am (10 min)	Opening	R.V.F. Janssens	ANL
9.10 am – 9.35 am (20+5 min)	Progress and Challenges in Nuclear Structure and Nuclear Astrophysics Presentation [7.1MB, posted: Aug. 13, 2012]	J. Carlson	LANL
9.35 am – 9.55 am (15+5 min)	Two and Four Proton Decays in ^{8}C and ^{12}O Ground States and Their Isobaric Analogs Abstract Presentation [1.9MB, posted: Aug. 11, 2012]	R. J. Charity	WUSL
9.55 am – 10.15 am (15+5 min)	On the Evolution of the Neutron $0d_{5/2}$ and $1s_{1/2}$ Orbitals in Neutron-Rich $0p-1s0d$ Shell Nuclei Abstract Presentation [2.4MB, posted: Aug. 13, 2012]	C. R. Hoffman	ANL

List of Available NS12 Posters as of Aug. 28, 2012

Download List as PDF

First Author	Title	Poster Number
Ahn, S.	Study of the Low-Lying Structure of the N = 49 Nucleus, ^{81}Ge	1
Albers, M.	Evidence for a Smooth Onset of Deformation in the Neutron-Rich Kr Isotopes [5.8MB, file last modified: Aug. 25, 2012]	2
Andreoiu, C.	Electron Capture Branching Ratio Measurement of ^{116}In Using the TITAN Facility	3
Ayangeakaa, A. D.	Tidal Waves in ^{102}Pd : A Rotating Condensate of Multiple d -Bosons	4
Batchelder, J. C.	Systematics of Low Energy Collective States in Neutron-Rich Cd Isotopes	5
Bender, P. C.	Probing the Shape Transitions in ^{98}Sr and ^{98}Zr	6
Bernards, C.	β -Delayed γ -Ray Spectroscopy of ^{196}Hg and Its Description Within the Extended Supersymmetry	7

Implications for the future?

- many useful conference data on the Web – e.g. NS12 and ARIS11 – some will take years to publish, others never will - need to find a way to include them into the NP databases
- attending conferences and communications with the end users – Nuclear Structure, Astrophysics & Applied Nuclear Physics – very beneficial!!! As funding are limited better coordination is needed



Low Energy Community Meeting

August 17-18, 2012

In connection with the Nuclear Structure 2012 Meeting at Argonne National Laboratory

<http://meetings.nscl.msu.edu/CommunityMeeting2012/>

[Home](#)

The second annual Low-Energy Community Meeting was held in connection with the Nuclear Structure 2012 Meeting at Argonne National Laboratory. There were 204 on-site registrants and 102 people registered to participate by webinar.

[Webinar](#)

The major part of the meeting was devoted to working groups. Fifteen working groups held meetings and made short presentations summarizing their discussions on Saturday morning, 18 August. The Community Meeting had an added importance this year, as it was our community's chance to provide input into the NSAC Subcommittee that is charged with providing advice on how to implement the recommendations of the 2007 Long Range Plan. The participants unanimously voted to support one resolution. There was an excellent open discussion of possible resolutions on Friday, 17 August, 7:15- 8:15 pm lead by Rick Casten. The resulting single resolution was discussed and adopted on Saturday morning, 18 August, during the 10:30am session. A copy of the resolution that was submitted to the subcommittee can be viewed here: [Statement to the LRP Implementation Subcommittee](#)

[Program](#)

On Thursday 16 August there was a longer nuclear astrophysics breakout session. More information that meeting is posted at <http://www.fribastro.org>.

[Organizing Committee](#)

The resolution and talks are posted on the program link at the left of this page.

[Sponsors](#)

We thank everyone for their participation.

[Registration](#)

Sincerely,

[Accommodation](#)

The Low-Energy Community Meeting Organizing Committee :
Baha Balantekin, Carl Gross, Daryl Hartley, Augusto Machiavelli, Witek Nazarewicz, David Radford, Guy Savard, Hendrik Schatz, Bradley Sherrill, Michael Smith, Ingo Wiedenhoever



2012 USNDP Meeting, BNL, November 5-6, 2012

<http://meetings.nscl.msu.edu/CommunityMeeting2012/>

Friday, 17 August

Plenary Presentations / Joint with NS2012 conference - APS Auditorium

- 11:40 am GRETINA's First Year: Status and Results - Chris Campbell, LBNL - [presentation](#)
- 12:00 am Science and Status of the Facility for Rare Isotope Beams - [presentation](#)
Brad Sherrill, MSU
- 12:55 pm Lunch – APS Conference Center Gallery
- 1:40 pm - 2:20 pm Overview of facilities for low-energy research - Robert Janssens, ANL - [presentation](#)
- 2:20 pm - 2:50 pm Challenges in Nuclear Astrophysics - Anna Frebel, MIT - [presentation](#)
- 2:50 pm - 3:20 pm Frontiers and Challenges in Nuclear Theory - Witek Nazarewicz - UT/ORNL - [presentation](#)
- 3:20 pm - 3:50 pm Holifield Recent Results - Carl Gross, ORNL - [presentation](#)
- 3:50 pm - 4:20 pm NSAC LRP Implementation Subcommittee Process –
Lee Sobotka, Washington University - [presentation](#)
- 4:20 pm Break
- 4:35 pm - 6:35 pm Working Group Meetings

Nuclear Astrophysics Breakout Session at ANL on August 16-17, 2012:

In connection with the [the Low Energy Community Meeting](#) to be held on August 17-18, 2012 at Argonne National Lab, there will be a **Nuclear Astrophysics Breakout Session** on the afternoon and evening of Thursday, Aug. 16. This meeting will cover a wide range of topics for nuclear astrophysics in the FRIB era, and will include theory and observation discussions. There will also be a more focussed meeting on equipment for FRIB on Friday, August 17. Results of these discussions will be presented in a Plenary session at the Low Energy Community Meeting on Saturday morning, Aug. 18. For more details on this meeting to register, [please see our Meetings page](#).

Saturday, 18 August

8:30 am - 10:15 am Working Group Summary Presentations - APS Auditorium

[Astrophysics](#) (10 min)

[Nuclear Theory](#) (10 min)

[Superheavy elements](#) (5 min for all others)

[Gamma-ray detection](#)

[Clovershare](#)

[Neutron detectors](#)

[Decay Spectroscopy](#)

[Helios](#)

[Recoil Separator](#)

[Precision Measurements](#)

[High Rigidity Spectrograph](#)

[EOS Working group](#)

[Target Lab](#)

[Education/outreach](#)

[Data Program](#)

Discussion

10:30 am - 11:15 am Discussion of the NSAC Subcommittee Process - APS Auditorium - [Resolution Adopted](#)

