

# Second Circular and Call for Abstracts



**11TH INTERNATIONAL CONFERENCE ON  
NUCLEUS-NUCLEUS COLLISIONS**

**May 27 – June 1, 2012  
San Antonio, Texas, USA**

Organized by

[Cyclotron Institute, Texas A&M University](#)



and

[Department of Physics and Astronomy, Texas A&M University-Commerce](#)



Dear Colleague,

[The 11<sup>th</sup> International Conference on Nucleus-Nucleus Collisions \(NN2012\)](#) will be held from May 27 through June 1, 2012 at the Hyatt Regency Hotel in [San Antonio, Texas](#). The NN2012 will maintain the general spirit and intention of this conference series. The scientific subjects to be discussed at the Conference will cover a wide spectrum of nucleus-nucleus collisions with a significant emphasis on applied aspects.

## **Scientific Program**

The scientific program will be structured around the following topics:

- Heavy and Superheavy Elements
- QCD and Hadron Physics
- Relativistic Heavy-Ion Collisions
- Nuclear Structure
- Nuclear Energy and Applications of Nuclear Science and Technologies
- Fusion and Fission
- Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions
- Reactions and Structure- Unstable Nuclei
- Nuclear Astrophysics
- New Facilities and Detectors

The Conference will consist of [plenary sessions](#), parallel sessions and poster sessions in series. There will be invited talks at plenary and parallel sessions. Selected oral contributions will be presented at parallel sessions. The rest of the contributions will be presented and discussed in poster sessions. The invited talks at the plenary and parallel sessions will be 30 minutes long including 5 minutes for discussion. The selected oral contributions will in general be 20 minutes long including 5 minutes for discussion.

Following the tradition of the conference and the suggestions from the International Advisory Committee (IAC), the Local Organizing Committee (LOC) has selected from 398 nominees 42 invited talks in the 10 plenary sessions. In addition to the plenary talks, at least one invited talk in each of the up-to-36 parallel sessions will be arranged. The invitees will be selected also from the IAC's nominees at a later stage, in coordination with the abstracts which we receive. These additional invited talks, along with the selected oral contributions and posters, will further broaden and complete the NN2012 scientific program.

## **Preliminary List of Plenary Talks**

**Keynote Talk:** Robert Tribble (Texas A&M University)

### **Heavy and Superheavy Elements**

Valery Zagrebaev (FLNR Dubna), SHE theory

Koji Morimoto (RIKEN), Decay properties of SHE

Michael Bender (CENBG, Bordeaux), Structure of superheavy nuclei

Robert Eichler (Paul Scherer Institute) SHE Chemistry and Spectroscopy

### **QCD and Hadron Physics**

Zoltan Fodor (Wuppertal U. & Eotvos U), QCD, hadrons & equation of state from the lattice  
Miklos Gyulassy (Columbia U.), Hard probes of QGP  
Pengfei Zhuang (Tsinghua University, Beijing), Quarkonium Production in Hot Quark Matter  
Piotr Salabura (Jagiellonian University, Krakow), HADES experiments investigating in-medium hadron properties

### **Relativistic Heavy-Ion Collisions**

Peter Braun-Munzinger (GSI), Quarkonium production, statistical hadronization, and the QCD phase boundary  
Gunther Roland (MIT), An overview of CMS+ATLAS experiments at LHC  
Carl Gagliardi (Texas A&M University), An overview of RHIC experiments  
Ulrich Heinz (The Ohio State U), How perfect is "perfect"? The Quark-Gluon Plasma at RHIC and LHC

### **Nuclear Structure**

Andres Gadea (U. of Valencia), First Results with the early implementation of AGATA  
Roderick M. Clark (LBNL), The Structure of the Heaviest Elements  
Takaharu Otsuka (U. of Tokyo), Shell evolution with tensor and three-body forces  
Rafal Broda (Jagiellonian University, Krakow), Nuclear structure south-east of  $^{48}\text{Ca}$  and upwards in spin in the  $^{208}\text{Pb}$  region

### **Nuclear Energy and Applications of Nuclear Science and Technologies**

Jolie Cizewski (Rutgers), Nuclear Stewardship Science  
Alex C. Mueller (CNRS, France), Prospects for Transmutation of Nuclear Waste and the MYRRHA-demonstrator  
Johan A. Frenje (MIT), Nuclear Science using High Energy Density Plasmas - A new field of research  
Maria Martisikova (German Cancer Research Center, Heidelberg), New measurement techniques for ion beam therapy purposes

### **Fusion and Fission**

Mahananda Dasgupta (Australian National University), Fusion studies  
Alberto Stefanini (INFN-LNL, Italy), Fusion of calcium isotopes and of other medium-mass systems  
Cedric Simenel (CEA Saclay), TDHF calculations of fusion and quasi-fission  
Fanny Farget (Ganil) Isotopic fission fragment distributions as a deep probe to fusion-fission dynamics

### **Equation of State of Neutron-Rich Nuclear Matter, Clusters in Nuclei and Nuclear Reactions**

Betty Tsang (MSU), Overview of the density dependence of the Nuclear Symmetry Energy  
Stefan Typel (GSI/TU-Munich), Cluster in nuclear matter and the Equation of State  
Francesca Gulminelli (LPC-Caen) EOS of neutron-rich nuclear matter and its impact on astrophysics  
Naoyuki Itagaki (Kyoto University), Exotic cluster structure in light nuclei

## **Reactions and Structure- Unstable Nuclei**

Lee G. Sobotka (U. of Washington, St. Louis), Continuum spectroscopy of light nuclei studied by high-order correlation experiments

Alan Wuosmaa (Western Michigan U.), Recent experimental results from HELIOS

Tom Aumann (GSI), Quasi-free knockout reactions with high-energy radioactive beams

Gaute Hagen (ORNL), Structure and reactions at the dripline with coupled-cluster theory

## **Nuclear Astrophysics**

Michael Wiescher (Notre Dame), Experimental overview

Thomas Rauscher (U. of Basel), Explosive nucleosynthesis and its connection to astrophysical reaction rates for unstable nuclei

Claudio Spitaleri (U. of Catania), Trojan horse technique to measure nuclear astrophysical rearrangement reactions

Alain Coc (Orsay), Big-Bang Nucleosynthesis

## **New Facilities and Detectors**

Brad Sherrill (MSU), FRIB

Marek Lewitowicz (Ganil), SPIRAL2

Guenther Rosner (GSI and U. of Glasgow) (to be confirmed), FAIR

Tohru Motobayashi (RIKEN), RIBF

Guy Savard (Argonne), CARIBU: a new facility for the study of neutron-rich isotopes

## **Abstract submission**

The [NN2012 abstract submission page](#) is now open. The contributing author who submits an abstract is considered to be the presenter if the abstract is selected. If the abstract has multiple co-authors, please list them in the text window of the abstract.

- Contributors should submit their abstracts in plain text by **December 23, 2011**.  
All abstracts of contributed talks and posters will be reviewed by the LOC. Contributors will be informed whether their contributions have been selected for oral presentations in parallel sessions or accepted as posters after **Jan. 15, 2012**.
- All invited speakers are requested to provide their abstracts by **March 25, 2012**

Abstracts of invited talks and all accepted contributions will be posted online and included in a **USB Flash Drive of NN2012 Abstracts** which will be distributed to the participants at the registration desk during the conference.

## **Conference Proceedings**

The [NN2012 proceedings](#) will be ePublished in the Open Access *Journal of Physics: Conference Series* (JPCS), which is part of the [IOP Conference Series](#). Authors are requested to submit their papers prior to the deadline of Monday, September 3rd, 2012. All papers submitted to NN2012 will be subjected to a peer review process. There is a 15 page maximum for Plenary and Invited papers, and a 10 page maximum for Contributed Talks and Posters.

## **Conference Language**

The conference language is English. All presentations including discussions and submitted materials must be in English.

## Conference Venue

San Antonio is the seventh-largest city in the United States of America and the second-largest city within the state of Texas, with a population of 1.33 million. Located in the south-central part of Texas, San Antonio was named after San Antonio de Padua when a Spanish expedition stopped in the area in 1691. The city is famous for Spanish missions, the Alamo, the River Walk, the Tower of the Americas, the SeaWorld and Six Flags Fiesta Texas theme parks. The city is visited by approximately 26 million tourists per year. San Antonio is home to five Fortune 500 companies and to the South Texas Medical Center. [Based on the San Antonio Weather History](#), during the latter part of May San Antonio has an average low temperature of 65 (18 °C) and an average high temperature of 86 °F (30 °C). The average rainfall during the month of May is 4.7 in (120mm).

The NN2012 conference will be held at the [Hyatt Regency in San Antonio](#), located at 123 Losoya, San Antonio, Texas 78205, USA.

Tel: +1 210 222 1234 and Fax: +1 210 227 4925

- The special NN2012 conference rate at the Hyatt Regency is \$139/night plus tax. The cut-off date for this special rate is **May 7, 2012**. Acceptance of reservation requests received after the cut-off date will be based on availability at the Hotel's prevailing rates.
- To reserve online a Hyatt Regency room at the conference rate, please use the [NN2012 Hotel Room Reservation Page](#). To reserve a room by phone, please call the Reservation Phone Number - 1-888-421-1441 and use the Group Code: AMTX

## Conference Facilities

Electronic projectors with computers capable of reading CDs, memory cards and USB memory sticks will be available (Power Point or pdf files recommended). If you have special requirements, please inform us well in advance.

**Exhibition:** Technical exhibitions will be arranged at the conference site from May 28 through May 31.

## Registration

	<b>Payment Before Feb 25</b>	<b>On-site Payment</b>
<b>Participants</b>	<b>500 USD</b>	<b>600 USD</b>
<b>Accompanying Persons</b>	<b>200 USD</b>	<b>250 USD</b>
<b>Students</b>	<b>350 USD</b>	<b>400 USD</b>

Online registration will open to all interested participants after Dec. 1 2011. For online registration please follow the link at <http://nn2012.tamu.edu>. In the event that a problem

is encountered with on-line registration, please email or fax your registration to the conference office. Please register early if possible. The Registration Fee is 500 USD for payment received before Feb 25, 2012, or 600 USD for payment received after that date. The registration fee for students is reduced to 350 USD before Feb 25, 2012. Limited funds are available to reduce the registration fees for some participants from abroad especially young scientists (students and postdocs) who otherwise could not participate in the conference. **To receive a registration fee subsidy, please visit the Financial Aid Page after Dec. 1, 2011.**

### **Conference Banquet**

The Conference Banquet will begin at 7:00pm on May 31, 2012 (Thursday). The cost of Banquet is \$60/person and can be paid together with the registration fee.

### **Payment**

- **Online payment with Visa or Mastercard**  
Payment of the registration and/or banquet fees can be made online at the time of registration using either Visa or Mastercard. A receipt will be emailed upon receipt of online payment.
- **On-site Payment**  
All payments must be in USD. Cash and credit cards will be accepted at the registration desk on the first day of the conference.

### **Cancellation Policy**

Cancellation of the registration and/or the banquet reservation can be requested by fax or email to the NN2012 scientific secretary. All refunds will be made after the conference. The amount of the refund will depend on the date of cancellation, as follows:

Cancellation received	
by May 25, 2012	75%
after May 25, 2012	No refund

### **Social Activities and public lecture**

A welcome reception followed by a [public lecture](#) by [Dr. Francis Halzen](#) on neutrino physics will be held in the evening of Monday, May 28. A culture event will be organized in the evening of Tuesday, May 29. Wednesday afternoon is free for the participants to explore on their own the [tourist attractions in San Antonio and the surrounding areas](#).

### **VISA to enter the United States**

Participants and their accompanying persons who require a [visa to enter the United States](#) should submit the necessary application to the nearest US consular representative well in advance. A letter of invitation, if needed, can be requested by email from the NN2012 Scientific Secretary, Dr. Bao-An Li (Bao-An\_Li@Tamu-Commerce.edu)

## Access to San Antonio

[San Antonio International Airport](#) is served by all major US airlines with frequent direct flights from/to most major cities in the USA. In addition, there are major airports in Houston (approximately 3.5 hours by car), Austin (1.5 hours) and Dallas (5 hours) within driving distance to San Antonio.

## Important Dates

June 30, 2011	First circular
November 1, 2011	Second circular and call for papers
December 1, 2011	Early registration begins
December 23, 2011	Deadline for abstract submission
Jan. 15, 2012	Announcement of paper acceptance
Feb 25, 2012	Deadline for early registration
March 25, 2012	Scientific program fixed
April 25, 2012	Final circular
May 27-June 1, 2012	Conference

## Conference Office

All correspondence and requests for further information concerning the conference should be sent to:

[Dr. Bao-An Li, Co-Chair & Scientific Secretary, NN2012](#)

Department of Physics and Astronomy,

Texas A & M University-Commerce

Commerce, Texas 75429-3011, USA

Phone: 903-886-5478, Fax: 903-886-5480

Email: [Bao-An\\_Li@Tamu-Commerce.edu](mailto:Bao-An_Li@Tamu-Commerce.edu)

Sincerely Yours

[NN2012 Local Organizing Committee](#)