

ANNUAL FALL MEETING

# Division of Nuclear Physics

October 13-17, 2019 Crystal City, VA

AMERICAN PHYSICAL SOCIET

# Code of Conduct

It is the policy of the American Physical Society (APS) that all participants, including attendees, vendors, APS staff, volunteers, and all other stakeholders at APS meetings will conduct themselves in a professional manner that is welcoming to all participants and free from any form of discrimination, harassment, or retaliation. Participants will treat each other with respect and consideration to create a collegial, inclusive, and professional environment at APS meetings. Creating a supportive environment to enable scientific discourse at APS meetings is the responsibility of all participants.

Participants will avoid any inappropriate actions or statements based on individual characteristics such as age, race, ethnicity, sexual orientation, gender identity, gender expression, marital status, nationality, political affiliation, ability status, educational background, or any other characteristic protected by law. Disruptive or harassing behavior of any kind will not be tolerated. Harassment includes but is not limited to inappropriate or intimidating behavior and language, unwelcome jokes or comments, unwanted touching or attention, offensive images, photography without permission, and stalking.

Violations of this code of conduct policy should be reported to meeting organizers, APS staff, or the APS Director of Meetings. Sanctions may range from verbal warning, to ejection from the meeting without refund, to notifying appropriate authorities. Retaliation for complaints of inappropriate conduct will not be tolerated. If a participant observes inappropriate comments or actions and personal intervention seems appropriate and safe, they should be considerate of all parties before intervening.

You may also report Code of Conduct violations by calling (844) 660-3924 or visiting aps.ethicspoint.com. This system is confidential, easy to use, and always available.

# Annual Fall Meeting of the

# Nuclear Physics

# October 14-17, 2019 Arlington, VA

Welcome to the Annual Fall Meeting of the Division of Nuclear Physics of the American Physical Society (DNP 2019). All sessions and events will be held in the Crystal Gateway Marriott. We hope you find the meeting informative, productive, exciting, and enjoyable.

Registration and badge pickup are in the Arlington Foyer, on the first level of the Marriott. Abstracts can be viewed on your phone via the "Meetings@APS" app or downloaded from the meeting website as a PDF.

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# **Acknowledgments**

# **Conference Organizers**

# Local Organizing Committee:

Chair:

Bill Briscoe (GWU)

Nawal Benmouna

(Montgomery College)

Thomas Cohen (UMD)

Michael Doring (GWU)

Evie Downie (GWU)

Latifa Elouadrhiri (JLab)

Gerry Feldman (GWU)

Harald Griesshammer (GWU)

Tanja Horn (CUA)

Maxim Mai (GWU)

# Program Committee:

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University of Massachusetts

at Amherst

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LANL (2020)

David Dean

DNP Past-Chair (2019)

Catherine Deibel

Louisiana State University

(2020)

Ken Hicks

**DNP Secretary-Treasurer** 

(2019)

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University of Tennessee

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ORNL (2019)

Greg Hackman

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Michigan State University

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Sherry Yennello

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DNP Vice-Chair (2019)

# **APS Meetings Staff**

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Eric Barth

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Kara Shumaker

Ruth Teferi

Donald Wise

# Thank You

We wish to sincerely thank our DNP 2019 sorters, many of whom also served on the Program Committee.

# Need to Know

# **Program Overview**

The scientific focus of this meeting is to discuss advances in basic and applied research of all areas of nuclear physics. The goals of this meeting is to foster cooperation, collaboration and the exchange of ideas among nuclear scientists from all over the world. Invited and contributed talks provide the basis for discussion, but many ideas sprout from the discussions that also take place outside of the meeting rooms. Students, both graduate and undergraduate, are invited to take part in all aspects of this meeting. We hope that everyone has a productive and enjoyable time, with mutual respect given to all meeting participants, as established by the APS Code of Conduct.

# WiFi Service

Free WiFi is available in the hotel lobby, which can also be reached in most meeting rooms. Hotel guests who are members of the Marriott Rewards (free to sign up) are provided free WiFi anywhere in the hotel during their stay.

# **Highlighted Sessions**

# Alternative Career Paths for a Nuclear Physicist

Tuesday, October 15, 2:00-4:00 pm

Salon I

This session includes talks by Congresswoman Elaine Luria, Nancy Jo Nicholas (LANL) and Clair J. Sullivan (GitHub).

# **CEU Poster Session & Physical Review Meet The Editors**

Tuesday, October 15, 4:00-6:00 pm

Salon 4 & Arlington Foyer

View the posters of the students participating in the Conference Experience for Undergraduates (CEU) program. Held at the same time as a reception hosted by *Physical* Review, in the same area, where you can meet the editors.

# **DNP Award Session**

Wednesday, October 16, 2:00-4:00 pm

### Salon I

Speakers include the winners of the Mentoring Award, the Stuart Jay Freedman Award, and the co-winners of the Dissertation Award in Nuclear Physics.

# DNP Business/Town Hall Session

Wednesday, October 16, 4:30-6:30 pm

# Salon 3

At this session, we will discuss the new DNP Bylaws, which will have an email vote following the DNP meeting. We will also discuss the latest NSAC report.

# **Meeting Banquet**

Wednesday, October 16, 7:00-9:30 pm

# **Grand Ballroom**

Hear from speaker Sylvester James Gates, who is well-known for his role on President Obama's Council of Advisors on Science and Technology, as well as for being the current Vice President of APS.

# Workshops

Physics Opportunities with EIC (I and II)

New Data Analysis Methods (I and II)

Nucleons, Nuclei and Neutron Stars in the Era of Gravitational Waves (I and II)

Monday, October 14, 9:00-10:30 am &

11:00 am-12:30 pm

**Salons 1, 2, 5** 

These three workshops cover a broad range of topics of interest to the nuclear physics community. Attendance at one of the workshops is included in the conference registration fee.

# **Social Events**

# **Companions Get-Together**

Monday, October 14, 3:00 pm

# **Crystal Boardroom**

A gathering of spouses and companions, with light refreshments, will be held in parallel with the Plenary Sessions. This is an opportunity to meet and greet, with the possibility of meeting later for sight-seeing. A speaker will outline various activities that are available in the vicinity near the meeting hotel.

# Welcome Reception

Monday, October 14, 6:30 pm

# **Sky View**

Enjoy light refreshments and chat with colleagues after the Plenary Sessions. This reception is open to all registered meeting participants and registered companions. A cash bar will be available.

# **Graduate Student Pizza**

Tuesday, October 15, 5:00 pm

Bertucci's, 2000 Pennsylvania Ave NW, Washington, DC

Meet other graduate students and develop your physics peer network during this social at Bertucci's Brick Oven Pizza & Pasta. You may register through the meeting website.

# 5th Annual Women in Science Social

Tuesday, October 15, 7:00 pm

Portofino, 526 23rd Street S, Arlington, VA

Help promote networking and community bonding for women of all experience and career levels in nuclear science. Over dinner at Portofino, established women in the field and early career scientists can discuss the challenges facing women in science and brainstorm action-based solutions. See the meeting website for signup information.

# Presentation & Session Info

# **Oral Presentation Guidelines**

All presentations must be displayed from the presenter's laptop. No laptops will be provided for presenters, and there will not be a way to upload a presentation before the talk. Laptops will need an HDMI connection. Proprietary adapters and cables are the responsibility of the presenter. All presentations should be formatted to 16:9 with a screen resolution maximum of 1080x720.

Presenters should arrive at their session at least 15 minutes prior to their scheduled presentation time. Any time used by the speaker to set up laptops during the session will be deducted from the speaker's allocated time.

Plenary talks are 30 minutes followed by 15 minutes for questions. Invited talks are 30 minutes followed by 6 minutes for questions. Contributed talks are 10 minutes followed by 2 minutes for questions.

# **Guidance for Session Chairs**

The two most important roles for session chairs are to manage the timing of presentations and to facilitate discussion around a talk. Please adhere strictly to the schedule. If a speaker is not present, or if an abstract is withdrawn, then hold the session for the duration of their allotted time, and start the next talk at the scheduled time. If a speaker shows up late or starts late, then that is deducted from their allotted time.

For Contributed Talks, set the time for 8 minutes, give the final warning at 10 minutes, then allow 2 minutes for questions. For regular Invited talks, set the time for 25 minutes, give the final warning at 30 minutes, then allow 6 minutes for questions. For Plenary talks, set the time for 25 minutes, give the final warning at 30 minutes, then allow 15 minutes for questions. For Workshop talks, set the time for 20 minutes, give the final warning at 25 minutes, then allow 5 minutes for questions.

# **General Information**

# **Poster Setup**

Posters can be set up between 12:30 pm and 3:30 pm on Tuesday, October 15. Please remove your poster at the end of your session. Any posters left hanging after the end of the session may be discarded.

Each poster will have space of 48" wide x 48" high. Thumbtacks will be provided for hanging posters. Please visit the Information Booth if you need more tacks.

# Meetings@APS Mobile App

Download the Meetings@APS mobile app to view the most up-to-date schedule. Browse sessions, search authors, and get important information about the meeting. More information about the app and links to download are available at aps.org/meetingapp.

The Bulletin is also available online for all meeting attendees at: meetings.aps.org/Meeting/DNP19/APS\_epitome.

# **Meeting Website**

The meeting website is: dnp2019.columbian.gwu.edu

# **General Information**

# **Exhibitions and Journals Booth**

# ARLINGTON FOYER

Available Monday through Thursday (9:00 am-12:00 pm)

# **DNP Registration/Information Desk**

# ARLINGTON FOYER (JUST OUTSIDE OF ARLINGTON BALLROOM)

# Hours:

 Monday, October 14
 7:30 am-5:00 pm

 Tuesday, October 15
 8:00 am-5:00 pm

 Wednesday, October 16
 8:00 am-5:00 pm

 Thursday, October 17
 9:00 am-11:00 am

Stop by the information booth to ask questions about the meeting facilities and activities. You can also inquire about last-minute program changes.

# **APS DNP Membership Booth**

# **ARLINGTON FOYER**

The APS Membership staff will be on hand to answer questions about APS and DNP membership.

Tuesday, October 15 9:00 am-5:00 pm Wednesday, October 16 9:00 am-5:00 pm Thursday, October 17 9:00 am-12:00 pm

# **Housing Information**

Crystal Gateway Marriott 1700 Jefferson Davis Highway Arlington, VA 22202

All meeting rooms are within the Crystal Gateway Marriott, which is located near the Crystal City Metro stop. For more information on the DC Metro, go to wmata.com. There is complementary shuttle service to/from the Reagan Washington National Airport (DCA). To schedule a shuttle pickup, call 703-920-3230.

**Disclaimer:** The APS DNP has made every effort to provide accurate and complete information in this publication. However, changes or corrections may occasionally be necessary and may be made without notice after the printing date. To ensure that you receive the most up-to-date information, check the meeting app or online epitome.

# Schedule at a Glance

TIME	EVENT	ROOM
MONDAY, OCTOBER 14		
9:00 am-10:30 am	Pre-meeting Workshops	SALONS 1, 2, 5
10:30 am-11:00 am	Coffee Break	ARLINGTON FOYER
11:00 am-12:30 pm	Pre-meeting Workshops (cont.)	SALONS 1, 2, 5
3:00 pm-4:30 pm	Plenary I	ARLINGTON BALLROOM
4:30 pm-5:00 pm	Coffee Break	ARLINGTON FOYER
5:00 pm-6:30 pm	Plenary II	ARLINGTON BALLROOM
6:30 pm-8:00 pm	Welcome Reception	SKY VIEW
TUESDAY, OCTOBER 15		
8:00 am-8:30 am	Coffee Break	GRAND FOYER
8:30 am-10:30 am	Scientific Sessions E	VARIOUS
10:30 am-12:30 pm	Scientific Sessions F	VARIOUS
2:00 pm-4:00 pm	Scientific Sessions G	VARIOUS
4:00 pm-6:00 pm	CEU Poster Session	SALON 4
WEDNESDAY, OCTOBER 16		
8:00 am-8:30 am	Coffee Break	GRAND FOYER
8:30 am-10:30 am	Scientific Sessions K	VARIOUS
10:30 am-12:30 pm	Scientific Sessions L	VARIOUS
2:00 pm-4:00 pm	Scientific Sessions M	VARIOUS
4:30 pm-6:00 pm	Business Meeting/Town Hall	SALON 3
6:30 pm-7:00 pm	Cash Bar Reception	SKY VIEW
7:00 pm-9:30 pm	Banquet	GRAND BALLROOM
THURSDAY, OCTOBER 17		
8:00 am-8:30 am	Coffee Break	GRAND FOYER
8:30 am-10:30 am	Scientific Sessions R	VARIOUS
10:30 am-12:30 pm	Scientific Sessions S	VARIOUS

# TUESDAY

# **Program Epitome**

# Monday, October 14

# 9:00 AM

# **1WA Physics Opportunities with EIC I**

# Salon 1

Chair: William Briscoe, GWU; Invited Speakers: Richard Milner, Cynthia Keppel, Simonetta Liuti

# 1WB New Data Analysis Methods I

# Salon 2

Chair: Michael Doring, GWU; Invited Speakers: Sarah Wesolowski, Richard Furnstahl, F.M. Nunes

# 1WE Workshop: Nucleons, Nuclei and Neutron Stars in the Era of Gravitational Waves I

### Salon 5

Chair: Harald W. Griesshammer, GWU; Invited Speakers: Betty Tsang, Jocelyn Read, Carolyn Raithel

# 11:00 AM

# 2WA Physics Opportunities with EIC II

# Salon 1

Chair: William Briscoe, GWU; Invited Speakers: Yacine Mehtar-Tani, Christian Weiss, Adrian Dumitru

# **2WB New Data Analysis Methods II**

# Salon 2

Chair: Michael Doring, GWU; Invited Speakers: Scott Pratt, Byron Roe, Nobuo Sato

# 2WE Workshop: Nucleons, Nuclei and Neutron Stars in the Era of Gravitational Waves II

# Salon 5

Chair: Harald W. Griesshammer, GWU

Invited Speakers: Stefano Gandolfi, Ingo Tews, Madappa Prakash

# 3:00 PM

# AC Plenary I

### Salon 3/4

Chair: Robert Janssens, University of North Carolina Invited Speakers: Jianwei Oiu. John Preskill

# 5:00 PM

# BC Plenary II

# Salon 3/4

Chair: Robert Janssens, University of North Carolina Invited Speakers: Chen-Yu Liu, Or Hen

# 6:30 PM

# **CA** Welcome Reception

**Sky View** 

# Tuesday, October 15

# 8:30 AM

# **EA** Structure of Proton-Rich Nuclei

### Salon 1

Chair: Corina Andreoiu, Simon Fraser University Invited Speakers: Alexandra Gade, Lee Sobotka, Dariusz Seweryniak

# EB Mini-Symposium: Neutrino Properties and Interactions: Results, Challenges, and Implications I

# Salon 2

Chair: Alfredo Galindo-Uribarri, Oak Ridge National Laboratory

Invited Speakers: Diana Parno

# EE Mini-Symposium: Towards a US Electron Ion Collider: Physics, Accelerator, and Detectors

# Salon 5

Chair: Ernst Sichtermann, Lawrence Berkeley National Laboratory

Invited Speakers: Andrei A. Seryi

# EG Nuclear Astrophysics: Stellar and Big Bang Nucleosynthesis

# Salon A

Chair: Chris Wrede, Michigan State University

# EH Mini-Symposium: New Results from CLAS12 I Salon B

Chair: Latifa Elouadrhiri, Jefferson Laboratory; Invited Speakers: Raffaella De Vita

# EJ Mini-symposium: Quantitative Understanding of QGP Properties I

### Salon C

Chair: Rainer Fries, Texas A&M Invited Speakers: Steffen Bass

# EL Mini-Symposium on Fundamental Symmetries: Theory and Experiment I

### Salon H

Chair: Nadia Fomin, University of Tennessee; Invited Speakers: E. Mereghetti

# EM Nuclear Theory I

# Salon J

Chair: Harald W. Grießhammer, George Washington University

# **EN Gluon Spin in proton-proton Collisions**

### Salon K

Chair: Kent Paschke, University of Virginia

# Tuesday, October 15

# 10:30 AM

FA Understanding the Nuclear Interaction Across Scales

Salon 1

Chair: Or Hen. MIT

Invited Speakers: Ronen Weiss, Dien Nguyen,

H.L. Crawford

FB Mini-Symposium: Neutrino Properties and Interactions: Results, Challenges, and Implications II

Salon 2

Chair: Vincente Guissepe, Oak Ridge National Laboratory; Invited Speakers: Phil Barbeau

FE Mini-Symposium: Towards a US Electron Ion Collider: Physics, Accelerator, and Detectors II

Salon 5

Chair: Douglas Higinbotham, Thomas Jefferson National Accelerator Facility

FG Mini-Symposium: Electrodisintegration Constraints on Astrophysical Radiative Capture Rates

Salon A

Chair: Richard Milner, MIT Invited Speakers: Ivica Friscic

FH Mini-Symposium: New Results from CLAS12 II

Salon B

Chair: Volker Burkert, Jefferson Laboratory

FJ Mini-Symposium: Quantitative Understanding of QGP Properties II

Salon C

Chair: Rosi Reed, Lehigh University

FL Mini-Symposium on Fundamental Symmetries: Theory and Experiment II

Salon H

Chair: Leah Broussard, ORNL

FM Nuclear Theory II

Salon J

Chair: James Vary, Iowa State University

FN Nuclear Structure I

Salon K

Chair: Lee Sobotka, Washington University in Saint Louis

# Tuesday, October 15

# 2:00 PM

**GA** Alternative Career Paths for a Nuclear Physicist

Salon 1

Chair: Evie Downie, GWU

Invited Speakers: Nancy Jo Nicholas, Clair J. Sullivan,

Elaine Luria

GB Mini-Symposium: Neutrino Properties and Interactions: Results, Challenges, and Implications III

Salon 2

Chair: Phil Barbeau, Duke University

GE Mini-Symposium: Short Range Correlations and Bound Nucleon Structure Across Scales I

Salon 5

Chair: Misak Sargsian, Florida International University Invited Speakers: Scott Bogner

**GG** Nucleon Structure at Colliders

Salon A

Chair: Kent Paschke, University of Virginia

**GH** Electromagnetic Interactions I

Salon B

Chair: Daniel Carman, Jefferson Laboratory

GJ Mini-symposium: Quantitative Understanding of QGP Properties III

Salon C

Chair: Nathan Grau, Augustana University;

Invited Speakers: Ron Belmont

GL Instrumentation: Detectors for Heavy Ion Collisions

Chair: Sevil Salur, Rutgers University

**GM QCD Theory** 

Salon J

Chair: Wally Melnitchouk, Thomas Jefferson National Accelerator Facility

**GN Nuclear Structure II** 

Salon K

Chair: Elizabeth McCutchan, Brookhaven National Laboratory

### 4:00 PM

HA Conference Experience for Undergraduates Poster Session

Salon 4

Chair: Shelly Lesher

# Wednesday, October 16

# 8:30 AM

# **KA Nuclear Probes of Fundamental Symmetries**

### Salon 1

Chair: Vincenzo Cirigliano, LANL

Invited Speakers: Amy Nicholson, Sergey Syritsyn, Ronald G. Ruiz

# **KB** Neutrino Physics

# Salon 2

Chair: Jim Napolitano, Temple University

# KE Mini-Symposium: Short Range Correlations and Bound Nucleon Structure Across Scales II

# Salon 5

Chair: Doug Higinbotham, JLab Invited Speakers: Misak Sargsian

# KG Nuclear Astrophysics: Classical Novae and X-ray Bursts

Salon A

Chair: Dan Bardavan, University of Notre Dame

# KH Nucleon Structure I

Salon B

Chair: Kent Paschke, University of Virginia

# KJ Mini-symposium: Search for the Critical Point I

Salon C

Chair: Jacquelyn Noronha-Hostler, Rutgers University; Invited Speakers: Peter Petreczky

# KL Mini-Symposium on Fundamental Symmetries: Theory and Experiment III

# Salon H

Chair: Nadia Fomin, University of Tennessee; Invited Speakers: Jaideep Singh

# KM Electromagnetic Interactions II

# Salon J

Chair: Ken Hicks, Ohio University

# KN Nuclear Structure III

Salon K

Chair: Calem Hoffman, Argonne National Laboratory

# Wednesday, October 16

# 10:30 AM

# LA Spin, Size and Structure of the Nucleon

### Salon 1

Chair: Ernst Sichtermann, Lawrence Berkeley National Laboratory

Invited Speakers: Julie Roche, Jinlong Zhang, Paul Reimer, Haiyan Gao

# LB Neutrino Properties

# Salon 2

Chair: Nathaniel Bowden, Lawrence Livermore National Laboratory

# LE Mini-Symposium: Short Range Correlations and Bound Nucleon Structure Across Scales III

### Salon 5

Chair: Florian Hauenstein, ODU

# LG Mini-Symposium: Nuclear Physics and the r-Process in the Multi-messenger Era I

# Salon A

Chair: Catherine Deibel, Louisiana State University; Invited Speakers: Jorge Piekarewicz

# LH Nucleon Structure II

# Salon B

Chair: Kent Paschke, University of Virginia

# 

Salon C

Chair: Roy Lacey, Stony Brook University

# LL Mini-Symposium on Fundamental Symmetries: Theory and Experiment IV

# Salon H

Chair: Geoffrey Greene, University of Tennessee; Invited Speakers: Leah Broussard

# LM Electroweak Interactions

# Salon J

Chair: Saori Pastore, Washington University, St Louis

# **LN Nuclear Structure IV**

# Salon K

Chair: Sam Tabor, Florida State University

# Wednesday, October 16

# 2:00 PM

# **MA Award Session**

Salon 1

Chair: Krishna Kumar, University of Massachusetts, Amherst

Invited Speakers: Samuel Tabor, Or Hen, Shirley Li, Isaac Upsal

# MB Mini-Symposium: Particle Emission and Exotic Nuclei Salon 2

Chair: Andrew Rogers, UMass Lowell Invited Speakers: Kalle Auranen

# ME Developments in Lattice Field Theory

Salon 5

Chair: Kostas Orginos, William & Mary

# MG Mini-Symposium: Nuclear Physics and the r-Process in the Multi-messenger Era II

Salon A

Chair: Artemis Spyrou, MSU

# MH Nucleon Structure III

Salon B

Chair: Kent Paschke, University of Virginia

# MJ Mini-Symposium: Search for the Critical Point III

Salon C

Chair: Derek Teaney, Stony Brook University; Invited Speakers: Roli Esha

# 4:30 PM

# NC Business Meeting

Salon 3

# 6:30 PM

# PA Cash Bar Reception

Grand Foyer/Sky View

# 7:00 PM

# PB Banquet

**Grand Ballroom** 

Invited Speakers: Sylvester James Gates

# Thursday, October 17

# 8:30 AM

# RA Hydrodynamic Simulations of the QGP: Successes and Challenges

Salon 1

Chair: Michael Strickland, Kent State University Invited Speakers: Julia Velkovska, Chun Shen, Gokce Basar

# **RB** Neutrinoless Double Beta Decay

Salon 2

Chair: David Radford, Oak Ridge National Laboratory

# RC Mini-Symposium: Excited State Lifetime Measurements for Nuclear Structure and Astrophysics

Salon 3

Chair: Peter Bender, UMass Lowell; Invited Speakers: Hironori Iwasaki

# RD Instrumentation for Electron Scattering Experiments

Salon 4

Chair: Kent Paschke, University of Virginia

# **RE Mini-Symposium: Lattice QCD for PDFs**

Salon 5

Chair: David Richards, Thomas Jefferson National Accelerator Facility Invited Speakers: Martha Constantinou, Huey-Wen Lin

# **RF** Muon-Proton Scattering

Salon 6

Chair: Evie Downie, George Washington University

# **RK Nuclear Reactions: Hadrons/Light Ions**

Salon F/G

Chair: Heather Crawford, Lawrence Berkeley National Laboratory

# RL Mini-Symposium on Fundamental Symmetries: Theory and Experiment V

Salon H

Chair: Christopher Crawford, University of Kentucky

# **RM** Nuclear Astrophysics: Supernovae

Salon J

Chair: Alfredo Estrade, Central Michigan University

# RN Nuclear Reactions: Heavy-lons/Rare Isotope Beams Salon K

Chair: Dariusz Seweryniak, Argonne National Laboratory

# Thursday, October 17

# 10:30 AM

# SA Particles, Nuclei and Stars via Beta Decay

# Salon 1

Chair: Kelly Chipps, Oak Ridge National Laboratory; Invited Speakers: Dan Melconian, Alfredo Estrade, Corina Andreoiu

# SB Instrumentation I

Salon 2

Chair: Maxim Mai, GWU

### SC Instrumentation II

Salon 3

Chair: Stuart Fegan, GWU

# SD Instrumentation III

Salon 4

Chair: Olga Cortes Becerra, GWU

# SE Undergraduate Research II

Salon 5 Chair: TBA

# SF Current and Future Jet Measurements

Salon 6

Chair: Ron Soltz, Lawrence Livermore National Laboratory

# SK Applications of Nuclear Physics

Salon F/G

Chair: Andrew Rogers, UMass Lowell

# SL Mini-Symposium on Fundamental Symmetries: Theory and Experiment VI

Salon H

Chair: Grant Riley, University of Tennessee

# SM Nuclear Astrophysics: Neutron Star Mergers and CEMP Stars

Salon J

Chair: Aaron Couture, Los Alamos National Laboratory

# SN Undergraduate Research I

Salon K

Chair: Shelly Lesher, University of Wisconsin, La Crosse

# **Floorplans**

# **First Level**



