

ICFN7



Sunday 06 November 2022 - Saturday 12 November 2022

Sundial Beach Resort

Scientific Program

The following is the current list of invited speakers and topics. Other invited talks will be added. Additional talks will be added from the submitted abstracts.

Introduction

- Fission Past, Present, Future - Walid Younes
- Facility for Rare Isotope Beams Capabilities, Outlook, and International Context - Alexandra Gade
- Prospects for New Facilities Based on Multi-Nucleon Transfer - Guy Savard
- How Close are We to a Predictive Model of Nuclei, Their Interactions, and Fission - Saori Pastore

Fission Modes, Reactions, and Processes

- Theory of Barrier-Top Dynamics in Fission - George Bertsch
- Unraveling the Many Facets of Fission Dynamics: A Real-Time Quantum Approach - Aurel Bulgac
- A Recent Progress in Dynamical Treatment of Nuclear Fission - Satoshi Chiba
- Experimental Prompt Fission neutron Spectrum Ratios for the Major Actinides - Matt Devlin
- Measurements of Neutron and proton-Induced Fission product Yields at TUNL - Sean Finch
- Study of Prompt Photofission Neutrons from Several Actinides - Forrest Friessen
- Total Kinetic Energy Release in the Fast Neutron Induced Fission of Actinide Nuclei - Water Loveland
- Uncertainty Quantification for Fission Fragment Initial Conditions - Amy Lovell
- Isotopic Fission Yields and Mass Measurements from ^{252}Cf Spontaneous Fission at the FRS Ion Catcher - Isreal Mardor
- Mapping the Fission Modes in the Neutron-Deficient Region, from Pt up to Th Isotopes with the R3B/SOFIA Setup - Pierre Morfouace
- Theoretical Description of Low-energy Nuclear Fission with Nuclear Density Functional Theory - Witek Nazarewicz
- Application of Cassini Shape Parameterization to Five-Dimensional Langevin Approach to Fission - Kazuki Okada
- The Experimental Fission Program at n_{ToF} CERN - Nikolas Patronis
- Isomeric Yield Ratios Obtained via Mass Measurement Techniques for Studies of Angular Momentum Generation in Fission- Stephan Pomp
- Photon Cascades from Spinning Fission Fragments- Jørgen Randrup
- Machine Learning Collective Coordinates of the Fission Process - David Regnier
- The Role of Octupole Deformed Shell on Fission - Guillaume Scamps
- Recent Progress in the Microscopic Description of Neutron-Induced Fission - Nicolas Schunck
- Informing CGMF with Microscopic Input - Ionel Stetcu
- Study of Abrasion-Fission Mechanism at Intermediate Energies in the Context of Drip-Line Searches - Oleg Tarasov
- Overview of the Experimental Fission Program at SOFIA GSI - Julien Taieb,
- Fission Modes in the Decay of $^{176,180}\text{Hg}$ Formed in the reactions $^{64,68}\text{Zn}+^{112}\text{Sn}$ at energies around the Coulomb barrier - Emanuele Vardaci
- Angular Momentum Observables in FREYA - Ramona Vogt

Nuclear Astrophysics

- GW170817, fission, and a Smoking Gun - Ani Aprahamian
- Understanding the Cosmic Abundance of ^{22}Na : Femtosecond Lifetime Measurements in ^{23}Mg - Chloe Fougères
- Fission in r-process Nucleosynthesis - Samuel Guillian
- Igniting SN-1a supernovae with a natural fission chain reaction - Chuck Horowitz

- Fission modeling for the Astrophysical r-process - Matt Mumpower
- Neutron Star Properties from LIGO and NICER Results - Carolyn Raithel
- Employing Ternary Fission of ^{242}Pu as a Probe of Neutron-Star Matter - Gerd Roepke
- EOS from Astro and Terrestrial Measurements - Tommy Tsang
- r-process from Neutron Star Mergers - Nicole Vassh
- Neutron Sources for the i- and n- Process - Michael Wiescher

Properties of Neutron-rich Nuclei

- Study of 4-neutron Systems - Thomas Aumann
- Measurement of Surrogate Reactions - Jolie Cizewski
- Knockout Reactions to Study Neutron-rich Nuclei - Heather Crawford
- Theory of Surrogate Reactions - Jutta Escher
- Time-Of-Flight Mass Measurements of r-process Nuclides - Alfredo Estrade
- Results from MTAS - Robert Grzywacz
- Multi-nucleon Transfer Reactions - Daryl Hartley
- The Structure of ^{32}Si - Ben Kay
- Mass Measurements at TRIUMF - Ania Kwiatkowski
- Fission of n-rich Nuclei - Navin Alahari
- The Surprising Structure of ^{40}Mg - Taka Otsuka
- Inference of Neutron-capture Rates for r-process Nuclei - Artemis Spyrou
- Experimental Study of Multi-nucleon Transfer Reactions - Kamila Zelga

Production and Accelerated Beams of Neutron-rich Nuclei

- Update and Status of FAIR - Helena Albers
- Update and Science of GRETA - Paul Fallon
- Chi-Nu Project - Keegan Kelly
- Rare Isotope Beam Factory at RIKEN - Hiroyoshi Sakurai
- Fission TPC NIFFTE - Luke Snyder
- Update and Science of AGATA - Jose Javier

Super Heavy Elements

- Chemistry Studies of Superheavy Elements at GSI - Christoph Düllmann
- Breakdown of Es Chemistry - Y. Yaita
- Results from BGS aided by FIONA - Jackie Gates
- First experiments at the Super Heavy Element Factory at Dubna - Krzysztof Rykaczewski
- Status of New Element Searches at RIKEN - Hide Sakai
- Recent Results from AGFA - Darek Seweryniak
- Recent LASER Spectroscopy and High-Precision Mass Measurements at GSI - Michael Block

Conclusion

- Reflections on Fission - Patrick Talou
- The Career of Joe Hamilton - Lee Ridinger
- Reflections on a Career in Nuclear Science and Other Things - Joseph Hamilton

