



# 14th International Conference on Nucleus-Nucleus Collisions (NN2024)

## Sunday, 18 August 2024

**Registration Grand Foyer (15h00 - 17h00) (15:00 - 18:00)**

**Public Lecture (18:00 - 19:00)**

time	[id]	title	presenter
18:00	[350]	How Nuclear Physics Can Treat Cancer - Radiotherapy at TRIUMF	HOEHR, Cornelia

# Monday, 19 August 2024

## Welcome (08:45 - 09:00)

### Plenary: 1 (09:00 - 10:30)

-Conveners: Mahananda Dasgupta

time	[id] title	presenter
09:00	[270] Experimental Prospects for Research on Superheavy Elements	RUDOLPH, Dirk
09:30	[326] The Electron Ion Collider (EIC): Physics and Status	DESPANDE, Abhay
10:00	[41] (Zoom) Nuclear Uncertainties and the Interpretation of r-Process Observables	SURMAN, Rebecca

## Coffee Break (10:30 - 11:00)

### Plenary: 2 (11:00 - 12:30)

-Conveners: Thomas Aumann

time	[id] title	presenter
11:00	[265] In-Flight Rare Isotope Facilities and Related Instrumentation	GADE, Alexandra
11:30	[212] Learning from Exotic Hadrons by Using Lattice QCD	LEWIS, Randy
12:00	[159] The Contribution of Nuclear Experiments to the Bayesian Inference of the Neutron Stars Equation of State	GULMINELLI, Francesca

## Lunch Break (12:30 - 14:00)

### Plenary: 3 (14:00 - 14:40)

-Conveners: Achim Schwenk

time	[id] title	presenter
14:00	[177] Ab Initio Theory of Nuclear Scattering and Reactions	QUAGLIONI, Sofia

### Applications, Facilities & Instrumentation: AFI 1 - Garibaldi A (14:40 - 16:10)

-Conveners: Cornelia Hoehr

time	[id] title	presenter
14:40	[156] The CBM Time-of-Flight Project	DEPPNER, Ingo
15:05	[178] Status of the GRETA Project	FALLON, Paul
15:20	[164] The Upgrade of the Facility EXOTIC	MAZZOCCO, Marco
15:35	[146] Inside Nuclear Properties with g-factors	LOZEVA, Radomira
15:50	[226] Earthquake Precursor Measurements Employing a Network of Radon Sensors	GERL, Juergen

### Equation Of State: EOS 1 - Harmony B (14:40 - 16:10)

-Conveners: Betty Tsang

time	[id] title	presenter
14:40	[268] Extracting Properties of Dense Nuclear Matter from Heavy-Ion Collisions	SORENSEN, Agnieszka
15:05	[311] Search for Toroids in Excited Nuclear Material	YENNELLO, Sherry

15:30	[232] Heavy-Ion Collisions and the Low-Density Neutron Star Equation of State: from the Lab to Space	BOUGAULT, Rémi
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### **Hot & Cold QCD: QCD 1 - Wedgemount (14:40 - 16:10)**

-Conveners: Randy Lewis

time	[id] title	presenter
14:40	[240] Nucleon Structure Functions at Large-x	PARK, Sanghwa
15:05	[135] (Zoom) Collision-Energy Dependence of the Breit-Wheeler Process in Heavy-Ion Collisions and its Application to Nuclear Charge Radius Measurements	WANG, Xiaofeng
15:20	[251] Tantalizing Structure in Long Range Correlations in High Multiplicity e+e- Collisions and Fourier Decomposition Using Archived ALEPH Data at 91-209 GeV	MCGINN, Chris

### **Nuclear Astrophysics: NA 1 - Garibaldi B (14:40 - 16:10)**

-Conveners: Barry Davids

time	[id] title	presenter
14:40	[271] (Zoom) JENSA: Past, Present, and Future	CHIPPS, Kelly
15:05	[73] Nuclear Astrophysics with TPCs and Gamma-Beams	GAI, Moshe
15:20	[100] Radiative $\alpha$ Capture on $^{12}\text{C}$ in Cluster Effective Field Theory	ANDO, Shung-Ichi
15:35	[84] (Zoom) Study of $\nu$ p- $\nu$ Process Nucleosynthesis in Core Collapse Supernovae via $^{56}\text{Ni}(d,p)$ Reaction	LI, Jiatai

### **Nuclear Reactions I: NR 1 - Rainbow Theatre (14:40 - 16:10)**

-Conveners: Greg Christian

time	[id] title	presenter
14:40	[208] Advances in Solenoidal-Spectrometer Techniques for Reaction Studies	KAY, Benjamin
15:05	[34] First Observation of New Isotopes at FRIB	TARASOV, Oleg B.
15:20	[152] (Zoom) Measurements of Interaction and Charge-Changing Cross-Section of Carbon Isotopes 10,11,12C at the FRS	PRAJAPAT, Rinku
15:35	[106] Interaction Cross Sections and Neutron Skin Thickness of Ni Isotopes	FUKUTOME, Miki
15:50	[48] Short-Range Correlations in Dynamical Intranuclear Cascade Models for Describing Nucleon Knockout and Fission Reactions	RODRIGUEZ SÁNCHEZ, Jose Luis

### **Nuclear Structure I: NS 1 - Ballroom B (14:40 - 16:10)**

-Conveners: Gordon Ball

time	[id] title	presenter
14:40	[300] (Zoom) Observation of a Correlated Free Four-Neutron System	PANIN, Valerii
15:05	[112] Search for Beta-Delayed Protons in the Decay of $^{11}\text{Be}$	PFUTZNER, Marek
15:20	[199] Search for the Gamma Decay of the Narrow Near-Threshold Proton Resonance in $^{11}\text{B}$	BOTTONI, Simone

### **Coffee Break (16:10 - 16:40)**

**Applications, Facilities & Instrumentation: AFI 2 - Garibaldi A (16:40 - 18:10)****-Conveners: Robert Shearman**

time	[id] title	presenter
16:40	[220] Nuclear Data for Fission and Fusion Reactors	BERNSTEIN, Lee
17:05	[338] Nuclear Structure and Reaction Studies at the FSU John D. Fox Laboratory	SPIEKER, Mark
17:30	[171] TACTIC: a Novel Detector for Nuclear Astrophysics	CHAKRABORTY, Soham
17:45	[139] Recent Results and Prospects of the SCRIT Electron Scattering Facility	TSUKADA, Kyo

**Heavy & Superheavy Elements: SHE 1 - Harmony B (16:40 - 18:10)****-Conveners: Jacklyn Gates**

time	[id] title	presenter
16:40	[299] Surprising Decay Properties of the New SHE Isotope $^{255}\text{Db}$	PORE, Jennifer
17:05	[170] Reaction Dynamics of Heavy and Superheavy Nuclei Synthesis: Towards Understanding the Isotopic Dependent Reaction Dynamics in Zeptosecond Order	TANAKA, Taiki
17:20	[196] Towards a New Element Search with the Berkeley Gas-Filled Separator	ORFORD, Rodney
17:35	[213] Quasi-Fission in Reactions Leading to the Superheavy Elements	GUMBEL, Richard
17:50	[35] Deformation Effects on the Survival of Radon and Radium Compound Nuclei	MILDON, Jordan

**Hot & Cold QCD: QCD 2 - Wedgemount (16:40 - 18:10)****-Conveners: Nu Xu**

time	[id] title	presenter
16:40	[327] New Approaches to Light Hypernuclei with Heavy Ion Beams, Image Analyses and Machine Learning	SAITO, Takehiko
17:05	[247] Dilepton Measurements with HADES as Probes of Hot and Dense Hadronic Matter	SCHILD, Niklas
17:20	[233] Exploring Baryon-Rich QCD Matter with CBM at FAIR: Status and Prospects	FRIESE, Volker
17:35	[285] Chiral Symmetry in Nuclear Medium Observed in Pionic Atoms	ITAHASHI, Kenta

**Nuclear Astrophysics: NA 2 - Garibaldi B (16:40 - 18:10)****-Conveners: Annika Lennarz**

time	[id] title	presenter
16:40	[174] Thermonuclear Runaways Investigated Using Beta-Delayed Charged Particle Emission	WREDE, Christopher
17:05	[312] (Zoom) Progress of Underground Nuclear Astrophysics JUNA Experiments	LIU, Weiping
17:30	[207] The Surrogate Reactions for the Neutron-Capture Rate Using OEDO and SHARAQ in RIBF	IMAI, Nobu
17:45	[4] Indirect Measurement of the $^{27}\text{Al}(p,\alpha)^{24}\text{Mg}$ and $^{27}\text{Al}(p,\gamma)^{28}\text{Si}$ Cross Sections and Astrophysical Implications	LA COGNATA, Marco

**Nuclear Reactions I: NR 3 - Rainbow Theatre (16:40 - 18:10)****-Conveners: Alexandra Gade**

time	[id] title	presenter
16:40	[98] Exploring Exotic Nuclear Structure by Medium- to High-Energy Nuclear Collisions	HORIUCHI, Wataru
17:05	[17] Simultaneous Calculation of Elastic Scattering, Transfer, Breakup, and Other Direct Cross Sections for $d+^{197}\text{Au}$ Reaction	MARIDI, Hasan
17:20	[66] Determination of Point Proton Radii of Neutron-Rich Nitrogen Isotopes	ROY, Aritra
17:35	[79] Investigation of the Proton Radius of the Neutron-Rich Borromean Halo Nucleus $^{19}\text{B}$	PRAJAPATI, Divyang

**Nuclear Reactions II: NR 4 - Harmony A (16:40 - 18:10)****-Conveners: Kate Grzywacz**

time	[id] title	presenter
16:40	[283] Reaction Studies with the Active Target Time Projection Chamber	BAZIN, Daniel
17:05	[6] Neutron and Proton Inelastic Scattering on $^{56}\text{Fe}$ : Insights from the GELINA-Geel and 9-MV Tandem-Bucharest Measurements	COMAN, Adina
17:20	[116] First Test of MNT Reactions with Secondary Beams at the FRS Ion Catcher	MOLLAEBRAHIMI, Ali
17:35	[166] First In-Beam Experiment in K500 Superconducting Cyclotron at VECC	RANA, Tapan Kumar

**Nuclear Structure I: NS 2 - Ballroom B (16:40 - 18:10)****-Conveners: Sofia Quaglioni**

time	[id] title	presenter
16:40	[353] Dipole Excitations in Nuclei	TSONEVA, Nadia
17:05	[122] B(E2) Measurements in $^{28}\text{Mg}$ : Implications on the $N=20$ Island of Inversion	MARTIN, Matthew
17:20	[131] Higher-Lying Level Structure of $^{25}\text{Ne}$ Probed via Fusion Evaporation	LONGFELLOW, Brenden
17:35	[1] Lifetime Measurement of the $0^+_{-3}$ State in $^{120}\text{Sn}$	WU, Frank (Tongan)

**Reception (18:30 - 20:00)**

## Tuesday, 20 August 2024

### Plenary (08:30 - 10:30)

-Conveners: Robert Tribble

time	[id] title	presenter
08:30	[186] Nuclear Reaction Experiments at TRIUMF-ISAC	RUIZ, Chris
09:00	[281] Jets in Heavy-Ion Collisions	CHEN, Yi
09:30	[130] Pursuing New Superheavy Elements: Progress Update from Berkeley Lab	GATES, Jacklyn
10:00	[214] Spectroscopy of Neutron-Rich Nuclei Produced in Multinucleon Transfer Reactions at KISS	WATANABE, Yutaka

### Coffee Break (10:30 - 11:00)

### Plenary (11:00 - 12:30)

-Conveners: Umesh Garg

time	[id] title	presenter
11:00	[236] Recent Nuclear Structure Studies with Gamma-Ray Spectroscopy	LENZI, Silvia M.
11:30	[257] (Zoom) Nucleon Spin Structure	EYSER, Oleg
12:00	[295] Determination of the Equation of State from Nuclear Experiments and Neutron Star Observations	TSANG, Betty

### Lunch Break (12:30 - 14:00)

### Plenary (14:00 - 14:30)

-Conveners: Iris Dillmann

time	[id] title	presenter
14:00	[310] Ultra-Sensitive Accelerator Mass Spectrometry for Detection of Interstellar Fe-60, Hf-182 and Pu-244	WALLNER, Anton

### Equation Of State: EOS 2 - Ballroom B (14:40 - 16:10)

-Conveners: Agnieszka Sorensen

time	[id] title	presenter
14:40	[37] Nuclear Incompressibility and the Asymmetry Term from Measurements of the Giant Monopole Resonance in Neutron-Rich Nuclei	GARG, Umesh
15:05	[113] PREX/CREX: Neutron Skins and Nuclear Symmetry Energy	MAMMEI, Juliette
15:30	[55] Cluster Production Dynamics in Xe+Sn Collisions from 32 and 150 MeV/Nucleon	CHBIHI, Abdou
15:45	[50] (Zoom) Machine Learning Transforms the Inference of the Nuclear Equation of State	WANG, Yongjia

### Hot & Cold QCD: QCD 3 - Wedgemount (14:40 - 16:10)

-Conveners: Lijuan Ruan

time	[id] title	presenter
14:40	[111] Lattice QCD & Relativistic Heavy-Ion Collision Phenomenology	KARTHEIN, Jamie

15:05	[90] Toward Extracting the Scattering Phase Shift from Integrated Correlation Functions in LQCD	GUO, Peng
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### **Nuclear Astrophysics: NA 3 - Garibaldi B (14:40 - 16:10)**

-Conveners: Gavin Lotay

time	[id] title	presenter
14:40	[294] Probing Heavy Element Nucleosynthesis Through Electromagnetic Observations	MARTÍNEZ-PINEDO, Gabriel
15:05	[94] Improving the Theoretical Description of $\beta$ -Decay Half-Lives for Nuclear $r$ -Process	RAVLIC, Ante
15:20	[216] Nuclear Fission of Neutron-Rich Nuclei Based on Dynamical Calculations for $r$ -Process Nucleosynthesis	NISHIMURA, Nobuya
15:35	[346] SiRoP Implementations: The Alpha Process, Mass Models and Sensitivity Analysis	TRUJILLO, Jose

### **Nuclear Reactions I: NR 5 - Rainbow Theatre (14:40 - 16:10)**

-Conveners: Benjamin Kay

time	[id] title	presenter
14:40	[219] Surrogate Reactions: Concepts and Recent Advances	ESCHER, Jutta
15:05	[47] First Experimental Test of the Ratio Method	CAPEL, Pierre
15:20	[209] Interaction and Charge-Changing Cross Sections of Neutron-Rich Cu Isotopes, and Derivation of Proton and Neutron Distribution Radii	TAKAYAMA, Gen
15:35	[145] Anisotropic Momentum Distribution of Projectile-Like Fragments with $\Delta A=1$ Observed at around 100 MeV/Nucleon	MOMOTA, Sadao
15:50	[132] Study of Tensor Correlations in High-Momentum Nucleon via $^{16}\text{O}(p,dN)$ Reaction	TERASHIMA, Satoru

### **Nuclear Reactions II: NR 6 - Harmony A (14:40 - 16:10)**

-Conveners: Pieter Doornenbal

time	[id] title	presenter
14:40	[339] Physics Opportunities with Relativistic Rare Ion Beams at R3B	CORTINA GIL, Dolores
15:05	[343] Studying Fission Cross Sections near $^{198}\text{Pb}$ with Rare Isotope Beams	LYNCH, William
15:30	[70] Probing the Pygmy Dipole Resonance of $^{50}\text{Ca}$ by Coulomb Excitation	LEMARIE, Julien
15:45	[115] First In-Beam Spectroscopic Study of the $T=3/2$ p-Unbound $^{55}\text{Cu}$	PIGLIAPOCO, Sara

### **Nuclear Structure I: NS 3 - Garibaldi A (14:40 - 16:10)**

-Conveners: Paul Garret

time	[id] title	presenter
14:40	[302] Neutron Dripline Search for Fluorine, Neon and Sodium and Discovery of $^{39}\text{Na}$ at RIKEN RIBF	KUBO, Toshiyuki
15:05	[81] Exploring the Mysteries of $^{32}\text{Mg}$ via Precision In-Beam Gamma-Ray Spectroscopy	KITAMURA, Noritaka
15:20	[5] Cross-Shell Excited States in $^{32}\text{Si}$ and $^{29}\text{Al}$ Populated Using Fusion-Evaporation	WILLIAMS, Jonathan



15:35	[176] Structure within the N=40 Island of Inversion	CRAWFORD, Heather
15:50	[205] Exploring Nuclear Structures with Fast Neutrons at NFS	SENGAR, Hemantika

### **Nuclear Structure II: NS 4 - Harmony B (14:40 - 16:10)**

-Conveners: Corina Andreoiu

time	[id] title	presenter
14:40	[306] Global Ab Initio Calculations for the Structure of Exotic and Heavy Nuclei	HOLT, Jason
15:05	[349] Low-Energy Electron Scattering for Nuclear Physics - ULQ2 for proton radius and SCRIT for exotic nuclei -	SUDA, Toshimi
15:30	[168] Study of Intruder States towards $^{78}\text{Ni}$ with Lifetimes Measurements Following $^{82}\text{Se}(d,p)^{83}\text{Se}$	PELLUMAJ, Julgen
15:45	[82] An Abrupt Shape Transition between $^{84}\text{Mo}$ and $^{86}\text{Mo}$ : a New Island of Inversion at $N = Z$	HA, Jeongsu

### **Coffee Break (16:10 - 16:40)**

### **Plenary: EDI -Talk (16:40 - 17:25)**

-Conveners: Sherry Yennello

time	[id] title	presenter
16:40	[351] Isotopes and Identities: The Physics of Complex Interactions	GRINYER, Gwen
17:10	[360] IUPAP and Nuclear Physics	DILLMANN, Iris

### **Poster Session (17:30 - 20:00)**

time	[id] title	presenter
17:30	[14] Measurement of Radiative Decay Width of the Hoyle State of $^{12}\text{C}$ via $^{12}\text{C}(p, p)^{12}\text{C}$ Reactions	TKRANA, Tapan Kumar
17:31	[32] Mirror Symmetry in the $f_{7/2}$ Shell below $^{56}\text{Ni}$ , Excited States and Electromagnetic Transition Rates in $^{55}\text{Ni}$ and $^{55}\text{Co}$	ASCH, Heinz
17:32	[71] Detector Developments for HISPEC/DESPEC Collaboration @ Slovenian Nuclear Instrumentation Laboratory	VESIC, Jelena
17:34	[83] Probing Heavy-Ion Fusion Reaction $^{136}\text{Xe} + ^{64}\text{Zn}$ in Inverse Kinematics	LI, Jiatai
17:35	[126] Neural Network-Based Prediction of Particle-Induced Fission Cross Sections for r-Process Nucleosynthesis Trained with Experimental Data and Dynamical Reaction Models	RODRIGUEZ SÁNCHEZ, Jose Luis
17:36	[155] Measurements of Backward Angle Quasi-Elastic Scattering in $^{28}\text{Si} + ^{158}\text{Gd}$ : Sensitivity of $\beta_{2}$ , $\beta_{4}$ , and $2n$ Transfer	PRAJAPAT, Rinku
17:37	[217] Investigation of the Excited States of $^{114}\text{Sn}$ Using the GRIFFIN Spectrometer at TRIUMF	SYEDA, Noor E Kainat
17:38	[235] Study of Multinucleon Knockout Reactions of Exotic Nuclei in the Region of Nitrogen	FEIJOO FONTÁN, Martina
17:39	[246] Simulations of Neutron Unbound Physics for Geant4	MENDEZ, Nicholas
17:40	[258] Investigation of States Populated in the $^{102}\text{Ru}(p,t)^{100}\text{Ru}$ Two Neutron Transfer Reaction	BUCK, Samantha

17:41	[269] Effects of Resonances on 6,7Li + 209Bi Reactions at Energy above the Coulomb Barrier	NDALA, Lucas Vusi
17:42	[289] Single-Neutron Transfer on 86Kr and 93Sr	YATES, Daniel
17:43	[342] Investigating Shell Evolution at the Proton Drip-Line through the 20Mg(d,p)21Mg Reaction at IRIS	SAUNDERS, Zach
17:44	[357] Excitation Energy Distribution of Projectile Prefragments Estimated from Intranuclear Cascade	RICHARDSON, Isaiah
17:45	[359] The IRIS Facility with Solid H2/D2 Targets at TRIUMF for Reaction Studies of Rare Isotopes	GORBET, Gabriel

## Wednesday, 21 August 2024

### Applications, Facilities & Instrumentation: AFI 3 - Harmony B (08:30 - 10:30)

-Conveners: Lee Bernstein

time	[id] title	presenter
08:30	[341] Fusion Ignition and Nuclear Physics on the National Ignition Facility (NIF)	MOORE, Alastair
08:55	[280] Using Laser Accelerated Proton Beams to Explore Radiobiological Effects in the Ultra-High Instantaneous Dose Rate Regime	NAKAMURA, Kei
09:20	[77] Nuclear Isomer Production via Laser-Driven Bremsstrahlung Irradiation for Astrophysical Applications at ELI-NP-1 PW	GIUBEGA, Georgiana
09:35	[103] Demonstration of Nuclear Gamma-Ray Polarimetry Based on a Multi-Layer CdTe Compton Camera	GO, Shintaro
09:50	[254] Update on the PYXIS Neutron Detector for the MoNA Collaboration	HE, Jiangshan

### Equation Of State: EOS 3 - Ballroom B (08:30 - 10:30)

-Conveners: Bao-An Li

time	[id] title	presenter
08:30	[193] Nuclear Equation of State from Nuclear Theory, Experiments, and Observations	SCHWENK, Achim
08:55	[9] The INDRA-FAZIA Setup: Investigating Isospin Transport as a Signature for Symmetry Energy Effects in Heavy Ion Collisions	CIAMPI, Caterina
09:10	[52] (Zoom) Effects of the Hadronic Potentials on Particle Correlation Effects in Heavy Ion Collisions at Intermediate and High Energies	LI, Pengcheng

### Fusion and Fission: FF 1 - Wedgemount (08:30 - 10:30)

-Conveners: David Hinde

time	[id] title	presenter
08:30	[53] Shell Effects in Quasi-Fission in Reactions Forming Actinide and Superheavy Compound Nuclei	SIMENEL, Cedric
08:55	[16] Reviving Nuclear Fusion Reaction Cycles in Solido	FORTUNATO, Lorenzo
09:10	[26] Fusion Dynamics Far Below the Barrier for $^{12}\text{C} + ^{28}\text{Si}$	BRUGNARA, Daniele
09:25	[134] Dependence of $\alpha$ -Clustering on Neutron-Excess Associated with Fusion of Mid-Mass Nuclei	KUMAR, Rohit
09:40	[110] Role of Dissipation on the Quasielastic Barrier Distributions of the $^{20}\text{Ne} + ^{92,94,95}\text{Mo}$ Systems	COLUCCI, Giulia

### Nuclear Astrophysics: NA 4 - Harmony A (08:30 - 10:30)

-Conveners: Almudena Arcones

time	[id] title	presenter
08:30	[291] The Importance of Isomeric States in Nuclear Astrophysics	LOTAY, Gavin
08:55	[129] Radiative Capture on Nuclear Isomers: Direct Measurement of the $^{26}\text{Al}(p,g)^{27}\text{Si}$ Reaction with DRAGON	LENNARZ, Annika
09:10	[211] Opportunities for Isomer Studies for Astrophysics at FRIB	PAIN, Steven

09:25	[101] Precise Measurement of Nuclear Interaction Cross Sections towards Neutron-Skin Determination with $R^3B$	PONNATH, Lukas
09:40	[183] Impact of Isoscalar- and Isovector-Meson Mixing on Properties of Asymmetric Nuclear Matter in Relativistic Mean-Field Models	MIYATSU, Tsuyoshi

### **Nuclear Reactions I: NR 7 - Rainbow Theatre (08:30 - 10:30)**

-Conveners: Daniel Bazin

time	[id] title	presenter
08:30	[282] Electric Response of Nuclei Studied by Proton Scattering	TAMII, Atsushi
08:55	[333] (Zoom) Probing Nuclear Pairing with 2-Neutron Transfer Reactions	POTEL AGUILAR, Gregory
09:20	[80] Ab Initio Investigation of ${}^7\text{Li}(p, \gamma){}^8\text{Be}$ and ${}^7\text{Li}(p, e^- e^-){}^8\text{Be}$ Processes	GYSBERS, Peter
09:35	[95] Search for Tetraneutron States via Transfer Reaction on ${}^8\text{He}$ at TRIUMF	ROJO, Jennifer

### **Nuclear Reactions II: NR 8 - Garibaldi B (08:30 - 10:30)**

-Conveners: Pierre Capel

time	[id] title	presenter
08:30	[54] Surrogate Reactions in Inverse Kinematics at Heavy-Ion Storage Rings	JURADO, Beatriz
08:55	[141] Exploration of the Decay Mechanisms and Associated Aspects of $Z = 102$ Nobelium Nucleus	KAUR, Shubhpreet
09:10	[118] Fragments Features and Isoscaling in Ni+Ca Systems at the Entrance of Fermi Energy Domain	GERACI, Elena
09:25	[151] (Zoom) Fission Isomer Studies at FRS and IGISOL	ZHAO, Jianwei
09:40	[43] New Measurements of the ${}^{19}\text{F}(p, \alpha_0){}^{16}\text{O}$ and ${}^{19}\text{F}(p, \alpha_{\pi}){}^{16}\text{O}^{**}$ Reaction Cross Sections close to the Coulomb Barrier	REDIGOLO, Luigi

### **Nuclear Structure I: NS 5 - Garibaldi A (08:30 - 10:30)**

-Conveners: Jack Henderson

time	[id] title	presenter
08:30	[307] Recent Highlights on In-Beam Gamma Spectroscopy at RIBF and Future Perspectives	DOORNENBAL, Pieter
08:55	[124] Approaching $100\text{Sn}$ : Shell Evolution in $98,100\text{Cd}$ via Lifetime Measurements	MENGONI, Daniele
09:10	[27] Fine Structure of the Isoscalar Giant Monopole Resonance in $58\text{Ni}$ , $90\text{Zr}$ , $120\text{Sn}$ and $208\text{Pb}$	BAHINI, Armand
09:25	[13] Collectivity, Shape Coexistence and Isomerism in Lanthanide Nuclei Close to the Proton Drip Line	PETRACHE, Costel
09:40	[188] First Measurements of the Quadrupole Moment of the $2+$ State and $B(E2)$ Value of the $4+$ State in $110\text{Sn}$ from Coulomb Excitation	PARK, Joochun (Jason)

### **Coffee Break (10:30 - 11:00)**

### **Plenary (11:00 - 12:30)**

-Conveners: Paul Fallon

time	[id] title	presenter
11:00	[218] Ab Initio Prediction of $\alpha(d,\gamma)^6\text{Li}$ and Impact of the $^6\text{Li}$ Properties onto $\alpha$ -Induced Reactions of Astrophysical Interest	HEBBORN, Chloe
11:30	[40] (Zoom) Recent Results on Hypernuclei	NAGAE, Tomofumi
12:00	[63] SPES: Status and Plans for Completion	AZAIEZ, Faical

**Box Lunch - IAC Meeting 12:30-14:30 in Garibaldi A, Lunch provided (12:30 - 13:00)**

**Free Afternoon (13:00 - 18:00)**

# Thursday, 22 August 2024

## Plenary (08:30 - 10:30)

-Conveners: Nu Xu

time	[id] title	presenter
08:30	[332] Frontiers in Ab-Initio Computations of Atomic Nuclei	HAGEN, Gaute
09:00	[308] A Fluid Dynamic Perspective on High Energy Nucleus Collisions	FLOERCHINGER, Stefan
09:30	[345] Ultrahigh Dose-Rate (FLASH) Radiotherapy at the TRIUMF ARIEL Beamline	BAZALOVA-CARTER, Magdalena
10:00	[162] Active Targets and Time Projection Chambers for Nuclear Physics	ROGER, Thomas

## Coffee Break (10:30 - 11:00)

## Plenary (11:00 - 12:30)

-Conveners: Kevin Hahn

time	[id] title	presenter
11:00	[60] R-Process in Neutron Star Mergers and Supernovae	ARCONES, Almudena
11:30	[358] (Zoom) The Superheavy Nuclei: Fusion and Fission	JADAMBAA, Khuyagbaatar
12:00	[237] Radionuclide Production and Chelation to Enable the Development of Radiopharmaceuticals for Imaging and Therapy	RAMOGIDA, Caterina

## Lunch Break (12:30 - 14:00)

## Plenary (14:00 - 14:40)

-Conveners: Dirk Rudolph

time	[id] title	presenter
14:00	[49] Structure of the Heaviest Elements	LOPEZ-MARTENS, Araceli

## Applications, Facilities & Instrumentation: AFI 4 - Wedgemount (14:40 - 16:10)

-Conveners: Alex Hands

time	[id] title	presenter
14:40	[72] Quasi-Continuum Nuclear Data	WIEDEKING, Mathis
15:05	[276] Neutron Capture Measurements at UMass Lowell Research Reactor	JANDEL, Marian
15:20	[184] Microcalorimeters for Heavy Ions – a Tool to Investigate Multi-Nucleon Transfer Reactions	KRAFT-BERMUTH, Saskia
15:35	[203] Development of the Detector Array for Photons, Protons, and Exotic Residues	MCINTOSH, Alan B.

## Fusion and Fission: FF 2 - Harmony B (14:40 - 16:10)

-Conveners: Kaitlin Cook

time	[id] title	presenter
14:40	[158] Probing Optimal Energy for Synthesis of Element 119 from $^{51}\text{V}+^{248}\text{Cm}$ Reaction and Fusion Reaction Studies for Producing New Elements and Isotopes	SAKAGUCHI, Satoshi

15:05	[15] Investigating the Systematics of Shell-Driven Fission Below the Actinides	BUETE, Jacob
15:20	[86] Scission Deformation of $^{120}\text{Cd}/^{132}\text{Sn}$ Neutronless Fragmentation in $^{252}\text{Cf}(sf)$	FRANCHETEAU, Alexis
15:35	[163] Fission Studies Using Quasi-Free Scattering Reactions in Inverse Kinematics	BENLLIURE, Jose
15:50	[224] The Role of Slow Quasifission in the Suppression of Fusion at Above-Barrier Energies	BEZZINA, Lauren

### **Hot & Cold QCD: QCD 4 - Garibaldi B (14:40 - 16:10)**

-Conveners: Jamie Karthein

time	[id] title	presenter
14:40	[36] Electromagnetic Probes of the QCD Plasma	VUJANOVIC, Gojko
15:05	[91] Electromagnetic Fields in Relativistic Heavy Ion Collisions	WAKO, Tewodros
15:20	[150] (Zoom) Deciphering Yield Modification of Hadron-Triggered Semi-Inclusive Recoil Jets in Heavy-Ion Collisions	HE, Yang
15:35	[227] Multi-Messenger Analysis of Jet Quenching Using Bayesian Inference	DU, Lippei

### **Nuclear Astrophysics: NA 5 - Garibaldi A (14:40 - 16:10)**

-Conveners: Gabriel Martínez-Pinedo

time	[id] title	presenter
14:40	[296] Understanding X-ray Bursts via Direct Measurements of $(\alpha, p)$ Reactions	AVILA, Melina
15:05	[7] Constraining the Astrophysical $\gamma$ Process: Cross Section Measurements of $(p, \gamma)$ Reactions in Inverse Kinematics	TSANTIRI, Artemis
15:20	[78] Measurements of $(\alpha, n)$ Reactions for Astrophysics at TRIUMF	WILLIAMS, Matthew
15:35	[189] First Results From Measurements of Capture Reactions on Sn and Pd for the $\gamma$ -Process Using HECTOR	MCDONAUGH, John
15:50	[12] Neutron Induced Reactions for BBN: an Indirect Approach	PIZZONE, Rosario

### **Nuclear Reactions I: NR 9 - Rainbow Theatre (14:40 - 16:10)**

-Conveners: Jutta Escher

time	[id] title	presenter
14:40	[292] $^{36}\text{Ca}$ and Recent Highlights from Reaction Studies with the LISE Spectrometer	LALANNE, Louis
15:05	[180] Isospin Dependence of the Nuclear Temperature in the Reactions $^{78}\text{Kr}+^{40}\text{Ca}$ and $^{86}\text{Kr}+^{48}\text{Ca}$ at 10 AMeV	GNOFFO, Brunilde
15:20	[175] (Zoom) Investigation of One Neutron Stripping Followed by Breakup Reaction for $^9\text{Be} + ^{124}\text{Sn}$ System	KAUR, Satbir

### **Nuclear Reactions II: NR 10 - Ballroom B (14:40 - 16:10)**

-Conveners: Kathrin Wimmer

time	[id] title	presenter
14:40	[309] Search for Alpha-Condensed States in $^{20}\text{Ne}$ and $^{24}\text{Mg}$	KAWABATA, Takahiro
15:05	[38] Cluster States at Very High Excitation Energy in $^{16}\text{O}$	REDIGOLO, Luigi

15:20	[68] ONOKORO Project: Comprehensive Research of Cluster Formation in Medium to Heavy Nuclei	KUBOTA, Yuki
15:35	[143] The Observation of Double Gamow–Teller Giant Resonance Using Double Charge Exchange ( $^{12}\text{C}$ , $^{12}\text{Be}(0+2)$ ) Reaction	SAKAUE, Akane
15:50	[204] Charge-Exchange Reactions as Probes of Neutrinoless Double-Beta Decays	JOKINIEMI, Lotta

### **Nuclear Structure I: NS 6 - Harmony A (14:40 - 16:10)**

-Conveners: Silvia M. Lenzi

time	[id] title	presenter
14:40	[263] (Zoom) Evolution of Shapes and Collectivity in the $^{78}\text{Ni}$ Mass Region	SAHIN, Eda
15:05	[18] New Results on the Nuclear Two-Photon Decay	KORTEN, Wolfram
15:30	[19] Probing Nuclear Structure and Dynamics via Near-Barrier Reactions	GODBEY, Kyle
15:45	[181] Octupole Correlations in Neutron-Deficient Xenon Isotopes	PÉREZ VIDAL, Rosa María

### **Coffee Break (16:10 - 16:40)**

### **Applications, Facilities & Instrumentation: AFI 5 - Harmony B (16:40 - 18:10)**

-Conveners: Mathis Wiedeking

time	[id] title	presenter
16:40	[266] An Overview of Nuclear Physics Programmes and Applications at the UK National Physical Laboratory	SHEARMAN, Robert
17:05	[352] Liquid Fuel Fast Reactors and the Future of Nuclear Power	HUSSEIN, Ahmed
17:30	[355] General Fusion: Targeting Transformation of the World's Energy Supply with the Most Practical Path to Commercial Fusion Energy	HILDEBRAND, Myles
17:45	[198] First Year of Physics with NEEDLE Setup	JAWORSKI, Grzegorz

### **Heavy & Superheavy Elements: SHE 2 - Wedgemount (16:40 - 18:10)**

-Conveners: Jennifer Pore

time	[id] title	presenter
16:40	[267] Investigating the Nuclear Structure of the Heaviest Elements with the SHIPTRAP Mass Spectrometer at GSI	GIACOPPO, Francesca
17:05	[136] Study of Deformed Structure in $^{254}\text{Es}$ by Coulomb Excitation	IDEGUCHI, Eiji
17:20	[157] Functionalized Detectors for Superheavy Element Homolog Chemistry Experiments	KIRKLAND, Amelia
17:35	[202] Heavy Element Research at Texas A&M University	FOLDEN, Charles

### **Hot & Cold QCD: QCD 5 - Garibaldi B (16:40 - 18:10)**

-Conveners: David Hornidge

time	[id] title	presenter
16:40	[262] (Zoom) Heavy Quarks and Pre-Equilibrium Dynamics in Heavy-Ion Collisions	RADHAKRISHNAN, Sooraj
17:05	[259] Probes of the Quark-Gluon Plasma with sPHENIX	CONNORS, Megan



17:20	[336] Precision Measurements of Net-Proton Number Fluctuations in Au+Au Collisions at RHIC	XU, Nu
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### **Nuclear Astrophysics: NA 6 - Garibaldi A (16:40 - 18:10)**

-Conveners: Christopher Wrede

time	[id] title	presenter
16:40	[65] New Results on the Direct Measurement of Carbon Burning at Astrophysical Energies	COURTIN, Sandrine
16:55	[201] The Challenging Direct Measurement of the 65 keV Resonance Strength in $^{17}\text{O}(p,\gamma)^{18}\text{F}$ at LUNA	PIATTI, Denise
17:10	[225] Study of the Proton Capture Reaction on $^{20}\text{Ne}$ and $^{21}\text{Ne}$ Isotopes at LUNA	BARBIERI, Lucia
17:25	[245] A New Underground Measurement of the $^{14}\text{N}(p,\gamma)^{15}\text{O}$ Reaction at LUNA	COMPAGNUCCI, Alessandro

### **Nuclear Reactions I: NR 11 - Rainbow Theatre (16:40 - 18:10)**

-Conveners: Kazuyuki Ogata

time	[id] title	presenter
16:40	[297] Bayesian Uncertainty Quantification of Nuclear Reaction Theory	NUNES, Filomena
17:05	[88] (Zoom) The (d,p) Reaction on $^{11}\text{Be}$ Using ISS: Bringing Clarity to the Structure of $^{12}\text{Be}$	CHEN, Jie
17:20	[173] How the Study of the Continuum Structure of Light Nuclei Led to the Discovery of 7 New Isotopes and Exacting Tests of Nuclear Structure Models that Treat the Continuum	SOBOTKA, Lee
17:35	[206] What's New? An Ab Initio Investigation of He-3 He-4 Radiative Capture into Be-i	ATKINSON, Mack
17:50	[195] Quantifying Uncertainties on Nuclear Clustering and Dynamics Properties from a Symmetry-Informed Ab Initio Perspective	BECKER, Kevin

### **Nuclear Reactions II: NR 12 - Ballroom B (16:40 - 18:10)**

-Conveners: Yutaka Watanabe

time	[id] title	presenter
16:40	[33] Colliding Heavy Nuclei Have Multiple Identities on the Path to Fusion	COOK, Kaitlin
17:05	[45] A New Understanding of Quasifission and Deep Inelastic Collisions: Non-Equilibrium Competitors to Superheavy Element Fusion	HINDE, David
17:20	[11] (Zoom) Study of the Neutron-Rich Nucleus $^6\text{H}$ in Electron Scattering Experiment at MAMI-A1	SHAO, Tianhao

### **Nuclear Structure I: NS 7 - Harmony A (16:40 - 18:10)**

-Conveners: Steven Pain

time	[id] title	presenter
16:40	[298] Structure of $^{13}\text{Be}$ Studied Through the $^{12}\text{Be}(d,p)^{13}\text{Be}$ Reaction	GRZYWACZ, Kate
17:05	[272] Study of Shell Gaps in Neutron-Rich Carbon Isotopes : Spectroscopy of $^{15}\text{C}$ and $^{17}\text{C}$	FERNANDEZ DOMINGUEZ, Beatriz
17:30	[57] Probing $^{11}\text{Be}$ Structure with Transfer Reactions in the AT-TPC	SERIKOW, Michael

**Banquet (19:00 - 21:00)**

## Friday, 23 August 2024

### **Plenary (09:00 - 10:30)**

-Conveners: A. Galindo-Uribarri

time	[id] title	presenter
09:00	[305] Exploring Nuclei at the Edge of Nuclear Landscape	NAKAMURA, Takashi
09:30	[337] Neutrinos and Nuclear Security	HUBER, Patrick
10:00	[303] Nuclear Dynamics in the Framework of Time-Dependent Density Functional Theory with Pairing Correlations	MAGIERSKI, Piotr

### **Coffee Break (10:30 - 11:00)**

### **Plenary (11:00 - 12:00)**

-Conveners: William Lynch

time	[id] title	presenter
11:00	[323] Theoretical Perspectives on Hadron Structure	VANDERHAEGEN, Marc
11:30	[230] Experimental Challenges in Underground Nuclear Astrophysics Laboratory	BEST, Andreas

### **Lunch Break (12:00 - 13:30)**

### **Applications, Facilities & Instrumentation: AFI 6 - Ballroom B (13:30 - 15:00)**

-Conveners: Greg Hackman

time	[id] title	presenter
13:30	[85] Analyzing Superheavy Element Nuclides with a Multi-Reflection Time-of-Flight Mass Spectrograph	SCHURY, Peter
13:55	[114] Radiation Effects on Spacecraft and Aircraft (and How to Avoid Them)	HANDS, Alex
14:20	[260] Testing a New Technology for Producing High Purity Germanium Segmented Detectors	NAPOLI, Daniel R.
14:35	[231] Enhancing Heavy Ion Accelerator Capabilities in Australia for Research and Industry	DASGUPTA, M.

### **Nuclear Astrophysics: NA 7 - Garibaldi A (13:30 - 15:00)**

-Conveners: Annika Lennarz

time	[id] title	presenter
13:30	[340] Experimental Constraints for i-Process Nucleosynthesis Using Indirect Techniques	RICHARD, Andrea
13:55	[197] Constraining Neutron Capture Cross Sections via Surrogate Measurements with Hyperion	KOROS, Jes
14:10	[117] Indirect Study of Alpha Capture on $^{17}\text{O}$ for Determining the Impact of $^{16}\text{O}$ on the s-Process	ANGUS, Cameron

### **Nuclear Reactions I: NR 13 - Rainbow Theatre (13:30 - 15:00)**

-Conveners: Filomena Nunes

time	[id] title	presenter
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13:30	[301] Reaction Theory Developments for Breakup and Quasifree Knockout Reactions	OGATA, Kazuyuki
13:55	[92] Protons in $^{46}\text{Ar}$ : Bubbles and Transition Probabilities	BRUGNARA, Daniele
14:10	[210] Next-Generation Optical Potentials for Nuclear Reactions and Structure	PERROTTA, Salvatore Simone

### **Nuclear Structure I: NS 8 - Harmony A (13:30 - 15:00)**

-Conveners: Wolfram KORTEN

time	[id] title	presenter
13:30	[330] Symmetry and Collectivity of Mirror Nuclei	WIMMER, Kathrin
13:55	[75] Probing the Wave-Functions through Mirror Energy Differences between $^{43}\text{Ti}$ and $^{43}\text{Sc}$	REZYNKINA, Kseniia
14:10	[192] Exotic Nuclear Superfluidity in Heavy Nuclei	PALKANOGLU, Georgios
14:25	[25] Imaging the Collective Structure of Atomic Nuclei in High-Energy Nuclear Collisions from STAR	ZHANG, Chunjian

### **Nuclear Structure II: NS 9 - Garibaldi B (13:30 - 15:00)**

-Conveners: Juliette Mammei

time	[id] title	presenter
13:30	[89] Isospin Properties and Pair Correlations in $^{88}\text{Ru}$	CEDERWALL, Bo
13:55	[102] Coulomb Excitation with Radioactive and Stable Beams	HENDERSON, Jack
14:20	[172] (Zoom) Configuration Assignments of Three-Quasiparticle Quadruplets in Odd-A Nuclei	KAUR, Manpreet

### **Coffee Break (15:00 - 15:30)**

### **Plenary (15:30 - 16:30)**

-Conveners: Takashi Nakamura

time	[id] title	presenter
15:30	[61] Quasi-Free Scattering Experiments in Inverse Kinematics at GSI	AUMANN, Thomas
16:00	[244] Charged Particle Tracking Detectors for Relativistic Heavy-Ion Collisions	KLEIN, Jochen

### **Prizes & Closing Remarks (16:30 - 17:00)**