



# Nuclear Structure 2022

## Monday 13 June 2022

### NS2022 Plenary: Light Nuclei I (09:00-10:30)

**-Conveners: Carl Svensson**

time	[id] title	presenter
09:00	[173] Welcome	
09:10	[174] A four-neutron system probed through sudden removal of alpha particle from $^8\text{He}$	Dr PASCHALIS, Stefanos
09:40	[179] Proton inelastic scattering reveals deformation in $^{8}\text{He}$	HOLL, Matthias
10:10	[102] The structure of $^7,8,9\text{He}$ in the rotational model*	MACCHIAVELLI, Augusto

### NS2022 Plenary: Heavy Nuclei I (11:00-12:30)

**-Conveners: Jacklyn Gates**

time	[id] title	presenter
11:00	[175] Recent results on nobelium isotopes spectroscopy @ SHELS	DORVAUX, Olivier
11:30	[151] Spectroscopy of Trans-fermium Nuclei Using the Argonne Gas-Filled Analyzer	SEWERYNIAK, D.
11:50	[140] In-beam and decay spectroscopy of $^{251}\text{Md}$	MORSE, C.
12:10	[164] Laser Spectroscopy of the Heaviest Actinides	LANTIS, Jeremy

### NS2022 Plenary: Shapes and Collectivity I (13:30-15:00)

**-Conveners: Marco Siciliano**

time	[id] title	presenter
13:30	[54] From shape coexistence to shape isomers in atomic nuclei	KORTEN, Wolfram
13:50	[74] New developments of shell models for heavy deformed nuclei	SUN, Yang
14:10	[76] Level lifetime measurements in neutron-rich Zr and Mo isotopes around $A = 110$ through in-beam gamma-ray spectroscopy	MOON, Byul
14:30	[105] Shape and collectivity in $^{80}\text{Ge}$ studied via Coulomb Excitation	RHODES, Daniel

### NS2022 Plenary: Shells/Magicity I (15:30-17:00)

**-Conveners: Mark Caprio**

time	[id] title	presenter
16:15	[115] Lifetime measurement of first $4+$ state in $^{102}\text{Sn}$	ZHANG, guangxin
16:35	[158] New aspects of the physics of charge radii	AFANASJEV, Anatoli

# Tuesday 14 June 2022

## NS2022 Plenary: Heavy Elements II (09:00-10:30)

**-Conveners: Walid Younes**

time	[id] title	presenter
09:00	[180] Gamma-ray spectroscopy of nuclear fission	WILSON, J. N.
09:30	[127] The Broad Impact of Mass-Number Measurements for Heavy Element Studies	PORE, Jennifer
09:50	[163] Decay Spectroscopy of High-K Isomers in Deformed Neutron-rich $180 < A < 190$ Nuclei via Fragmentation of $^{198}\text{Pt}$	CHOWDHURY, P.
10:10	[117] New evidence for alpha clustering structure in the ground state band of $^{212}\text{Po}$	Mr VON TRESCKOW, Martin

## NS2022 Plenary: Islands of Inversion (11:00-12:30)

**-Conveners: D. Bazin**

time	[id] title	presenter
11:00	[181] Investigating the Spin-Orbital splitting in the N=19 isotones using SOLARIS	CHEN, Jie
11:30	[129] Single-nucleon transfer reactions probed in inverse kinematics with the ISOLDE Solenoidal Spectrometer - recent highlights	SHARP, David
11:50	[131] Investigation of the $^{46}\text{Ar}$ proton wave function: the $^{46}\text{Ar}(^3\text{He}, d)^{47}\text{K}$ direct reaction	BRUGNARA, Daniele
12:10	[99] Nuclear Structure of $^{36}\text{Al}$ and $^{36}\text{Si}$ via $\beta$ -decays of $^{36}\text{Mg}$ and $^{36}\text{Al}$	LUBNA, Rebeka Sultana

## NS2022 Plenary: Shapes and Collectivity (13:30-15:00)

**-Conveners: Peter Bender**

time	[id] title	presenter
13:30	[146] Lifetime measurements in fission fragments: Evolution of nuclear shapes and triaxiality	GÖRGEN, Andreas
13:50	[159] First Evidence of Axial Shape Asymmetry and Shape Coexistence in $^{74}\text{Zn}$ : Suggestion for a Northern Extension of the N=40 Island of Inversion	ROCCHINI, Marco
14:10	[84] Octupole collectivity in $^{74,76}\text{Kr}$ studied with inelastic proton scattering in inverse kinematics	SPIEKER, Mark
14:30	[80] Collectivity evolution of proton-rich Mo isotopes	HA, Jeongsu

## NS2022 Plenary: Statistical Structure and Astrophysics (15:30-17:00)

**-Conveners: Dorteia Gjestvang**

time	[id] title	presenter
15:30	[60] Photon Strength Function Studies: Progress and Outlook	Prof. WIEDEKING, Mathis
15:50	[141] $\beta$ -decay strength distributions of neutron-rich isotopes for r-process nucleosynthesis	LYONS, Stephanie

16:10	[51] Measurements of the E1-strength in Fe and Ni nuclei around the threshold	WIELAND, Oliver
16:30	[100] Gamma-Particle Coincidence Studies of $^{93}\text{Sr}(d,p)^{94}\text{Sr}$ via the Surrogate Reaction Method	RICHARD, Andrea

# Wednesday 15 June 2022

## NS2022 Plenary: Mirrors and Proton-Rich Nuclei (09:00-10:30)

-Conveners: **A. Rogers**

time	[id] title	presenter
09:00	[177] Symmetry and collectivity of mirror nuclei	Dr WIMMER, Kathrin
09:30	[59] Determination of the neutron-deficient $^{54}\text{Ni}$ charge radius and symmetry energy constraints using the difference in mirror pair charge radii	PINEDA, Skyy
09:50	[71] Discovery of the proton emitter 116La	CEDERWALL, Bo
10:10	[123] Advances in experimental methods to investigate the isospin breaking effects in isobaric triplets	RUOTSALAINEN, Panu

## NS2022 Plenary: New Facilities (11:00-12:30)

-Conveners: **Andrew Boston**

# Thursday 16 June 2022

## NS2022 Plenary: Lasers (09:00-10:30)

**-Conveners: Kyle Leach**

time	[id] title	presenter
09:00	[182] Recent highlights and new developments in (fluorescence based) collinear laser spectroscopy at ISOLDE	MALBRUNOT-ETTENAUE R, Stephan
09:30	[147] COLLINEAR LASER SPECTROSCOPY ON THE PALLADIUM ISOTOPIC CHAIN	ORTIZ CORTES, Alejandro
09:50	[139] Nuclear moments of indium isotopes reveal abrupt change at magic number 82	VERNON, Adam
10:10	[128] Beta-delayed neutron emission near $^{54}\text{Ca}$	XU, Zhengyu

## NS2022 Plenary: Light Nuclei II (11:00-12:30)

**-Conveners: D.G. Jenkins**

time	[id] title	presenter
11:00	[183] Ab initio description of nuclear reactions with applications to astrophysics	QUAGLIONI, Sofia
11:30	[57] Short-range correlations in the mirror nuclei $^3\text{H}$ and $^3\text{He}$	ARRINGTON, John
11:50	[103] Study the isomeric state of $^{16}\text{N}$ via the $^{16}\text{N}^{g,m}(d,^3\text{He})$ reaction	TANG, Tsz Leung
12:10	[101] Symmetries as a framework for understanding the emergence of nuclear collective behavior	MCCOY, Anna

## NS2022 Plenary: Shapes and Collectivity III (13:30-15:00)

**-Conveners: Gordon Ball**

time	[id] title	presenter
13:30	[58] Study of cross-shell excitations near the 'island of inversion' using fusion-evaporation and Doppler shift methods	WILLIAMS, Jonathan
13:50	[138] Mapping the $N = 40$ Island of Inversion with neutron-rich iron isotopes at TITAN	PORTER, William
14:10	[73] $K=4+$ Band-heads in $^{160}\text{Gd}$	YATES, Daniel
14:30	[86] Configuration mixing investigation in Ge isotopes through $E0$ strength measurements	PORZIO, Carlotta

## NS2022 Plenary: Shells and Magicity II (15:30-17:00)

**-Conveners: Corina Andreoiu**

time	[id] title	presenter
15:30	[109] Investigating the Nuclear Shell Evolution in Neutron-Rich Calcium	COLEMAN, Robin
15:50	[98] New experimental decay information of $\beta$ -delayed neutron emitters for very exotic neutron-rich nuclei in the north-east of double magic $^{78}\text{Ni}$ region	Dr CABALLERO-FOLCH, Roger

16:10	[114] Beta decay strength of $^{78}\text{Ni}$ to neutron-unbound states revealed by $^{79}\text{Cu}$	SINGH, Maninder
16:30	[111] First $\beta$ -decay spectroscopy of $^{135}\text{In}$ and new $\beta$ -decay branches of $^{134}\text{In}$	PIERSA-SILKOWSKA, Monika

# Friday 17 June 2022

## NS2022 Plenary: Fundamental Symmetries (09:00-10:30)

**-Conveners: M. Wiedeking**

time	[id] title	presenter
09:00	[178] Sub-keV Decay-Recoil Spectroscopy with Superconducting Quantum Sensors	Dr LEACH, Kyle
09:30	[61] Precision spectroscopy studies of radioactive molecules for fundamental physics	UDRESCU, Silviu-Marian
09:50	[161] Searching for Tensor Currents in the Weak Interaction in the $\beta$ -decay of ${}^8\text{Li}$ and ${}^8\text{B}$	GALLANT, Aaron
10:10	[148] Evidence of seniority conservation via lifetimes measurements in the N=50 isotones towards $100\text{Sn}$	PÉREZ VIDAL, Rosa María

## NS2022 Plenary: Shapes and Collectivity IV (11:00-12:30)

**-Conveners: Yang Sun**

time	[id] title	presenter
11:00	[145] Nuclear structure of the neutron-deficient cadmium isotopes close to ${}^{100}\text{Sn}$	SICILIANO, Marco
11:20	[77] First results from CLARION2-TRINITY: Coulomb Excitation of $49\text{Ti}$ and the proton-neutron interaction	Dr GRAY, Timothy
11:40	[133] Prediction of nuclear masses with an artificial neural network	MUMPOWER, Matthew
12:00	[142] Microscopic calculations of neutron-rich isotopes near $40\text{Mg}$	LAUBER, Stephanie

## NS2022 Plenary: Closing Session (13:30-14:30)

**-Conveners: Heather Crawford**

time	[id] title	presenter
13:30	[184] Poster Session Winner I	
13:45	[185] Poster Session Winner II	
14:00	[186] Closing Remarks	