

# MONDAY, 28 SEPTEMBER 2026

Scientific sessions: 09:00-12:40 and 15:00-18:40

|             |                                                                                                                            |
|-------------|----------------------------------------------------------------------------------------------------------------------------|
| SUN 19:00   | Informal gathering at a wine bar - proposed time, to be confirmed                                                          |
| 09:00-09:20 | Welcome Addresses and Official Opening - Prof. Radosław Dobrowolski, Rector of UMCS; Prof. Jakub Kupecki, Director of NCBJ |

SESSION I | 09:20-12:40

*Nuclear Structure and Excitations: From Electroweak Probes to Collective Modes*

| TIME        | SPEAKER           | FORMAT  | CONTRIBUTION                                                                                        |
|-------------|-------------------|---------|-----------------------------------------------------------------------------------------------------|
| 09:20-09:50 | Cedric Simenel    | Invited | Impact of Nuclear Structure on WIMP-Nucleus and Coherent Elastic Neutrino-Nucleus Scattering        |
| 09:50-10:20 | Kosuke Nomura     | Invited | Octupole and Hexadecapole Excitations in Nuclei                                                     |
| 10:20-10:40 | Artur Dobrowolski | Seminar | Octupole Instabilities and Pairing Vibrations in 220Rn                                              |
| 10:40-11:10 |                   |         | Coffee break                                                                                        |
| 11:10-11:40 | Jonathan Wilson   | Seminar | Prompt and Delayed Gamma-Ray Emission as an Experimental Probe of Fission                           |
| 11:40-12:10 | Zhigang Xiao      | Invited | Femtoscscopy: Its Concept and Selected Applications in Heavy-Ion Collisions                         |
| 12:10-12:30 | Daria Denisova    | Seminar | Gamow-Teller Resonance and Double-Beta Decay of 48Ca within the STDA Framework                      |
| 12:30-12:40 | Piotr Mróz        | Short   | Study of Proton-Induced Excitations of 208Pb Using the KRATTA, LaBr3 and PARIS Setup at CCB IFJ PAN |
| 12:40-15:00 | Lunch break       |         |                                                                                                     |

# MONDAY, 28 SEPTEMBER 2026 - AFTERNOON

Scientific session: 15:00-18:40 | Conference Dinner: 19:00

## SESSION II | 15:00-18:40

### Superheavy Nuclei: Formation, Fusion, and Fission Pathways

| TIME        | SPEAKER                         | FORMAT  | CONTRIBUTION                                                                                                            |
|-------------|---------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------|
| 15:00-15:30 | Yoshihiro Aritomo               | Invited | Impact of Dynamic Shell Evolution on Fusion Dynamics in Superheavy Element Synthesis                                    |
| 15:30-16:00 | Piotr Magierski                 | Invited | Superfluid Dynamics in Nuclear Collisions: Selected Aspects                                                             |
| 16:00-16:30 | Rayner Roberto Rodriguez Guzman | Invited | Microscopic Description of Spontaneous Fission in Superheavy Elements Including Tensor Correlations                     |
| 16:30-17:00 |                                 |         | Coffee break                                                                                                            |
| 17:00-17:20 | Tomasz Cap                      | Seminar | Revisiting pxn and axn Channels in Heavy and Superheavy Nuclei Synthesis                                                |
| 17:20-17:40 | Yannen Jaganathen               | Seminar | Mass Asymmetry Impact on Fusion Hindrance within 6-Dimensional Langevin Dynamics                                        |
| 17:40-18:00 | Rongyan Hu                      | Seminar | Systematic Study of Superheavy Nuclei within a Microscopic Collective Hamiltonian: Impact of Quantum Shape Fluctuations |
| 18:00-18:20 | Hemant Sharma                   | Seminar | Neck Constraint: A Useful Tool in the Description of Fission                                                            |
| 18:20-18:40 | Yi-Ming Jiang                   | Seminar | Flatness of the Landscape near the Island of Stability of Superheavy Nuclei                                             |
| 19:00       | Conference Dinner               |         |                                                                                                                         |

TUESDAY, 29 SEPTEMBER 2026

Scientific sessions: 09:00-12:50 and 15:00-18:30

SESSION III | 09:00-12:50

Nuclear Many-Body Theory: Correlations, Functionals, and Astrophysical Inputs

| TIME        | SPEAKER             | FORMAT  | CONTRIBUTION                                                                                 |
|-------------|---------------------|---------|----------------------------------------------------------------------------------------------|
| 09:00-09:30 | Gianluca Colò       | Invited | Two Avenues to Improve Nuclear Energy Density Functionals                                    |
| 09:30-10:00 | Bao-Jun Cai         | Invited | Nucleon Short-Range Correlations and the Equation of State of Dense Matter                   |
| 10:00-10:30 | Irene Dedes         | Invited | Estimating Uncertainties of the Nuclear Mean Field Parameters                                |
| 10:30-11:00 |                     |         | Coffee break                                                                                 |
| 11:00-11:30 | Samuel Giuliani     | Invited | Recent Advances in Nuclear Inputs for r-Process Simulations                                  |
| 11:30-12:00 | Nobuya Nishimura    | Invited | Dynamical Properties of Fission in Neutron-Rich Nuclei Relevant to r-Process Nucleosynthesis |
| 12:00-12:20 | Dimitri Lazarou     | Seminar | Stochastic Bogoliubov-de Gennes Approach to Nonequilibrium Fermionic Superfluidity           |
| 12:20-12:40 | Algirdas Deveikis   | Seminar | Coefficients of Fractional Parentage with Isospin                                            |
| 12:40-12:50 | Pavel Krassovitskiy | Short   | The Modification of the Scattering Model at Non-Spherical Nuclei by a Variable Potential     |
| 12:50-15:00 | Lunch break         |         |                                                                                              |

TUESDAY, 29 SEPTEMBER 2026 - AFTERNOON

Scientific session: 15:00-18:30

SESSION IV | 15:00-18:30

Nuclear Structure: Deformation, Collectivity, and Shape Coexistence

| TIME        | SPEAKER                  | FORMAT  | CONTRIBUTION                                                                                                                                            |
|-------------|--------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15:00-15:30 | Paul Garrett             | Invited | Nuclear Structure of the Zr Isotopes: Collectivity, Phase Transitions, and Shape Coexistence                                                            |
| 15:30-16:00 | Magda Zielińska          | Invited | Experimental Studies of Shape Coexistence in 94,96 Zr                                                                                                   |
| 16:00-16:30 | Joonas Ojala             | Invited | Experimental Studies on Shape Coexistence in the Mid-Shell Pb Region                                                                                    |
| 16:30-17:00 |                          |         | Coffee break                                                                                                                                            |
| 17:00-17:30 | Katarzyna Wrzosek-Lipska | Invited | Exploring Emergence of Shape Coexistence in 110Cd                                                                                                       |
| 17:30-18:00 | Katarzyna Hadyńska-Klęk  | Invited | Deformation in the Vicinity of 40Ca and 56Ni                                                                                                            |
| 18:00-18:20 | Chisato Ruike            | Seminar | Large-Amplitude Pairing Collective Dynamics Associated with Spontaneously Broken Global U(1) Symmetry                                                   |
| 18:20-18:30 | Kacper Proszowski        | Short   | Investigation of Pygmy Dipole Resonances in 64Ni Using Proton Inelastic Scattering and the KRATTA, LaBr3(Ce), and PARIS Detector Systems at CCB IFJ PAN |

WEDNESDAY, 30 SEPTEMBER 2026

Scientific sessions: 09:00-12:40 and 15:00-18:30

SESSION V | 09:00-12:40

Nuclear Reactions, Heavy-Ion Collisions, and Experimental Probes

| TIME        | SPEAKER            | FORMAT  | CONTRIBUTION                                                                                                          |
|-------------|--------------------|---------|-----------------------------------------------------------------------------------------------------------------------|
| 09:00-09:30 | Anton Repko        | Invited | Influence of Bound Electrons and Muons on the Binding Energy of Heavy Nuclei                                          |
| 09:30-10:00 | Barbara Sulignano  | Invited | Multinucleon Transfer in Very Heavy Systems                                                                           |
| 10:00-10:20 | Kohta Nakajima     | Seminar | Langevin-Model Analysis of Reaction Products in Multinucleon-Transfer Reactions                                       |
| 10:20-10:50 | Jun Su             | Invited | Recent Progress in Intermediate-Energy Heavy-Ion Reactions: The Evaporation Filter of Reaction Observables            |
| 10:50-11:20 |                    |         | Coffee break                                                                                                          |
| 11:20-11:50 | Michał Ciemala     | Invited | Investigation of Collective Excitation Modes via Inelastic Proton Scattering at the Kraków Cyclotron Centre Bronowice |
| 11:50-12:10 | Hritik Gogoi       | Seminar | Cosmic-Ray Veto Detector for the FINESSE Experiment at ESS                                                            |
| 12:10-12:20 | Gabriel Pietraszek | Short   | Machine-Learning-Based Noise Suppression for the P-ONE Experiment - Muon Track Channel                                |
| 12:20-12:30 | Paweł Strepikowski | Short   | Monte Carlo Simulations of Fixed-Target Ar-Sc and Pb-Pb Collisions at p = 30 AGeV/c                                   |
| 12:30-12:40 | Igor Ciarciński    | Short   | Monte Carlo Analysis of Spectator Nucleons Produced in Ultrarelativistic Xe+La Collisions                             |
| 12:40-15:00 | Lunch break        |         |                                                                                                                       |

## WEDNESDAY, 30 SEPTEMBER 2026 - AFTERNOON

Scientific session: 15:00-18:30

### SESSION VI | 15:00-18:30

*Fission Dynamics: From Microscopic Structure to Scission and Astrophysics*

| TIME        | SPEAKER             | FORMAT  | CONTRIBUTION                                                                                                 |
|-------------|---------------------|---------|--------------------------------------------------------------------------------------------------------------|
| 15:00-15:30 | Krzysztof Pomorski  | Invited | Shell and Pairing Energy Corrections around Scission                                                         |
| 15:30-15:50 | Aleksander Augustyn | Seminar | Comparative Study of Langevin and Random Walk Models for Nuclear Fission in the Overdamped Regime            |
| 15:50-16:10 | Katarzyna Mazurek   | Seminar | Evolution of the Fission Fragment Angular Momentum                                                           |
| 16:10-16:30 | Kouhei Washiyama    | Seminar | Microscopic Description of Spontaneous Fission for Fm Isotopes                                               |
| 16:30-17:00 |                     |         | Coffee break                                                                                                 |
| 17:00-17:30 | Zhipan Li           | Invited | Microscopic Study of Nuclear Excitation and Fission                                                          |
| 17:30-17:50 | Janusz Skalski      | Seminar | Fission of (Super)heavy Nuclei and Its Hindrance in Odd Systems and K-Isomers                                |
| 17:50-18:20 | Li Zeyu             | Invited | Microscopic Multidimensional Description of Nuclear Fission Dynamics Based on Fourier Shape Parameterization |
| 18:20-18:30 | Closing             |         |                                                                                                              |