

## Programme of the 9th Conference of the Polish Society on Relativity

Faculty of Physics, Astronomy and Applied Computer Science  
Jagiellonian University  
ul. Łojasiewicza 11  
Kraków, Poland

Room: A-1-06

### Monday, September 18

TIME	SPEAKER	TITLE
10:00		<i>Registration</i>
10:20		<i>Opening</i>
10:30	Krzysztof Głód	Two divergenceless fields in inertial and irrotational flow
11:00		<i>Coffee break and registration</i>
11:30	Leandros Perivolaropoulos	The challenges of $\Lambda$ CDM and the physics transition approaches
12:30	Alice Boldrin	The time problem and primordial perturbations
13:00	Syed Umair Husain Naqvi	Chaos and Einstein–Rosen waves
13:30		<i>Lunch</i>
15:00	Adam Cieřlik	Kerr geodesics in terms of Weierstrass elliptic functions
15:30	Andrzej Sitarz	Fundamental tensors of GR as spectral functionals
16:00		<i>Coffee break</i>
16:30	Filip Ficek	Quasinormal modes for Reissner-Nordström-anti-de Sitter black holes
17:00 - 17:30	Andrea Bevilacqua	$\kappa$ -deformed finite boost for a two-particle system

### Tuesday, September 19

TIME	SPEAKER	TITLE
10:00	Robert Stańczy	Black hole vs dark matter model
10:30	Adam Chudecki	Para-Kähler and para-Hermitian Einstein spaces
11:00		<i>Coffee break and registration</i>
11:30	Maciej Dunajski	Equivalence principle, de-Sitter space, and twistor theory
12:30	Jerzy Lewandowski	Symplectic charges in the Yang-Mills theory of the normal conformal Cartan connection: applications to gravity
13:00	Denis Dobkowski-Ryłko	A generalization of Einstein's quadrupole formula for radiated energy in de Sitter spacetime
13:30		<i>Lunch</i>

15:00	Maciej Ossowski	Non-trivial U(1)-horizons of Petrov Type D and their embedding
15:30	Jacek Jezierski	Conformal Yano-Killing tensor and its applications in GR
16:00		<i>Coffee break</i>
16:30 - 17:15	Jerzy Kijowski	Variational Principles in Physics (How to use them, how not to use them, and what it means for the theory of gravity)

### Wednesday, September 20

TIME	SPEAKER	TITLE
10:00	Igor Kanattsikov	The corrected Zeldovich formula for the cosmological constant and Milgrom's minimal acceleration from precanonical quantum gravity
10:30	Patryk Mach	Stationary solutions of the general-relativistic Vlasov equation: Monte Carlo approach
11:00		<i>Coffee break</i>
11:30	Jose Antonio Font	Long-term simulations of binary neutron star mergers: thermal effects, post-merger remnant oscillations, and non-convex dynamics
12:30	Fatemeh Hossein Nouri	Gas environmental effect on gravitational waves from supermassive binary black holes
13:00	Adam Zdrożny	Multi-messenger Astronomy in LVK O4-O5 Science Runs
13:30		<i>Lunch</i>
15:00	Andrzej Gózdź	Projection evolution and quantum spacetime
15:30	Aleksandra Pędrak	Quantum system ascribed to the Oppenheimer-Snyder model of massive star
16:00		<i>Coffee break</i>
16:30 - 17:30	Elena Giorgi	Black Hole Stability Problems in GR
19:00		<i>Conference Dinner in Stara Zajezdnia, św. Wawrzyńca 12, Kraków</i>

### Thursday, September 21

TIME	SPEAKER	TITLE
10:30	Tomasz Trześniewski	Carrollian and Galilean limits of deformed symmetries in 3D gravity
11:00		<i>Coffee break</i>
11:30	Eric Chassande-Mottin	Gravitational-wave astronomy in 2023 with LIGO, Virgo and KAGRA
12:30	Mario Flory	Constant intrinsic curvature surfaces in AdS/CFT
13:00	Grzegorz Czelusta	Quantum computations in Loop Quantum Gravity

13:30		<i>Lunch</i>
15:00	Jakub Gizbert-Studnicki	Four-dimensional Causal Dynamical Triangulations - the status report
15:30	Tatjana Vukasinac	Canonical approach to rotating weakly isolated horizons
16:00		<i>Coffee break</i>
16:30 - 17:00	Alejandro Corichi	Gauge theories with boundaries and its application to GR
17:30 - 18:30		<i>POTOR General Assembly</i>

## Friday, September 22

TIME	SPEAKER	TITLE
10:30	Débora Aguiar Gomes	Modified Poisson equation in $f(Q)$ gravity
11:00		<i>Coffee break</i>
11:30	Fernando Barbero	Hamiltonians and quantum gravity: present and future
12:30	Bartłomiej Zgierski	Cosmic Distance Ladder
13:30		<i>Lunch</i>
15:00	João Rosa	Observational imprints of horizonless bosonic and perfect fluid objects
15:30	Muhammad Zubair	Ultracompact stars in the light of minimal geometric deformation
16:00		<i>Closing</i>
16:15		<i>Coffee break</i>



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