

Session Program

23-26 Sept 2019



The 6th Conference of the Polish Society on Relativity

Parallel Sessions

Other Institutes
Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland

Monday 23 September

15:00

Parallel Sessions: Session I (SI) - Classical relativity, compact objects, gravitational waves (room 19)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Andrzej Krolak

15:00–15:20

Black-hole mimickers and echos from compact objects

Speaker

Dr Roman Konoplya

15:20–15:40

Standing gravitational waves

Speaker

Sebastian Szybka

15:40–16:00

Relativistic Lagrangian perturbation theory in spherical symmetry.

Speaker

Dr Jan Ostrowski

16:00–16:20

Instability of a RNAdS black hole under perturbations of a scalar field coupled to the Einstein tensor

Speaker

Bertha Cuadros-Melgar

16:20

15:00

Parallel Sessions: Session II (SII) - Quantum gravity, QFT and related topics (room 407)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Prof. Jerzy Lewandowski

15:00–15:20

Quantum corrections in rigidly-rotating thermal states on anti-deSitter space

Speaker

Victor Eugen Ambrus

15:20–15:40

The solution to the Petrov type D equation on the non-trivial bundle topology and its embeddability

Speaker

Denis Dobkowski-Ryłko

15:40–16:00

Fierz theory vs Linear Gravity

Speaker

Marian Wiatr

16:00–16:20

Top-down approach to the curved spacetime effective field theory (cEFT) - theory and examples

Speaker

Dr Lukasz Nakonieczny

16:20

16:50

Parallel Sessions: Session I (SI) - Classical relativity, compact objects, gravitational waves (room 19)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Andrzej Krolak

16:50–17:10

Magnetized self-gravitating tori around black holes

Speaker

Dr Patryk Mach

17:10–17:30

Conserved quantities related to (3+1) decomposition of CYK tensors

Speaker

Mr Tomasz Smółka

17:30–17:50

Conformally recurrent heavenly spaces

Speaker

Dr Chudecki Adam

18:10

16:50

Parallel Sessions: Session II (SII) - Quantum gravity, QFT and related topics (room 407)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Prof. Jerzy Lewandowski

16:50–17:10

Curvature perturbations in quantum cosmological spacetimes

Speaker

Dr Przemysław Małkiewicz

17:10–17:30

On the relation between the canonical Hamilton-Jacobi equation and the De Donder-Weyl Hamilton-Jacobi formulation in general relativity

Speaker

Natascha Riahi

17:30–17:50

Quantum gravity on a torus - an update

Speaker

Jakub Gizbert-Studnicki

17:50–18:10

Massline and other recent results of CDT quantumgravity

Speaker

Mr Dániel Németh

18:10

Tuesday 24 September

15:00

Parallel Sessions: Session III (SIII) - Testing relativity, astrophysics (room 19)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Prof. Marek Rogatko

15:00–15:20

Palatini stars

Speaker

Dr Aneta Wojnar

15:20–15:40

Solar system analysis of a polynomial class of Palatini $f(R)$ gravity

Speaker

JUNIOR TONIATO

15:40–16:00

Mass and spin constraint on black holes associated with long GRB's in Collapsar model.

Speaker

Ms Ishika Palit

16:00–16:20

Modeling General- relativistic disk in OJ 287

Speaker

Wojciech Dyba

16:20

15:00

Parallel Sessions: Session IV (SIV) - Strings, branes, holography (room 407)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Piotr Sulkowski

15:00–15:20

Simple SUGRA inflation

Speaker

Dr Michał Artymowski

15:20–15:40

Hopf-algebraic deformations of 3d spacetime symmetries

Speaker

Dr Tomasz Trzesniewski

15:40–16:00

Multidimensional dynamics of the brane - dilaton black hole system

Speaker

Dr Anna Nakonieczna

16:00–16:20

Discrete scale invariance in holography revisited

Speaker

Mario Flory

16:20

Wednesday 25 September

15:00

Parallel Sessions: Session V (SV) - Extended gravities (room 407)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Salvatore Capozziello

15:00–15:20

Breaking the Vainshtein Screening in Clusters of Galaxies

Speaker

Vincenzo Salzano

15:20–15:40

Perturbations of the Kerr metric in modified gravity

Speaker

Dr Arthur Suvorov

15:40–16:00

Static, spherically symmetric black holes in quadratic gravity

Speaker

Dr Vojtech Pravda

16:00–16:20

Solutions in Teleparallel Gravity: Gravitomagnetism and Rotational Effects

Speaker

Mr Andrew Finch

16:20

15:00

Parallel Sessions: Session VI (SVI) - Cosmology (room 19)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Dr Adam Balcerzak

15:00–15:20

Spacetime singularities in inflationary universes

Speaker

Daisuke Yoshida

15:20–15:40

Quantum cosmology with compact phase space

Speaker

Dr Jakub Mielczarek

15:40–16:00

Construction of the cosmological model with periodically distributed dust inhomogeneities with growing amplitude.

Speaker

Szymon Sikora

16:00–16:20

New insight into the Taub-NUT space-time

Speaker

Remigiusz Durka

16:20

16:50

Parallel Sessions: Session V (SV) - Extended gravities (room 407)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Salvatore Capozziello

16:50-17:10

Riemannian geometry imposed on Friedmann and more general spacetimes

Speaker

Janusz Garecki

17:10-17:30

Universal black holes

Speaker

Marcello Ortaggio

17:30-17:50

Mass, density and circumferential radius in general-relativistic Keplerian disks around black holes

Speaker

Wojciech Kulczycki

17:50

16:50

Parallel Sessions: Session VI (SVI) - Cosmology (room 19)

Session | **Location:** Other Institutes, Maritime Academy, Wały Chrobrego 1-2, Szczecin, Poland | **Convener:** Dr Adam Balcerzak

16:50-17:10

1+1+2 covariant formulation of light propagation in cosmological models

Speaker

Dr Krzysztof Głód

17:10-17:30

Strength of singularities in varying constants theories.

Speaker

Dr Konrad Marosek

17:50