

Šimon Knoška

PhD student

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RESEARCH INTEREST

Modified Theories of Gravity • Stron Gravity • Black Holes • Gravitational Waves • Exact Solutions

EDUCATION

DOCTORAL STUDIES AT CHARLES UNIVERSITY

Faculty of Mathematics and Physics,
Institute of Theoretical Physics
Theoretical Physics, Astronomy and Astrophysics
Oct 2021 – Present | Prague, CZ

MASTER'S STUDIES AT CHARLES UNIVERSITY

Faculty of Mathematics and Physics,
Institute of Theoretical Physics
Theoretical physics
Oct 2019 – Jun 2021 | Prague, CZ

BACHELOR'S STUDIES AT CHARLES UNIVERSITY

Faculty of Mathematics and Physics
General physics
Oct 2016 – Jun 2019 | Prague, CZ

PUBLICATIONS

- [1] Š. Knoška and R. Švarc (2022), *Schwarzschild–Bach black holes in the Robinson–Trautman coordinates and their physical properties*, IN PREPARATION.
- [2] Š. Knoška (2021), *Schwarzschild-Bach black holes*, Master's thesis, Charles University, Institute of Theoretical Physics.
- [3] Š. Knoška (2019), *Conformally related spacetimes*, Bachelors's thesis, Charles University, Institute of Theoretical Physics.

SKILLS

PROGRAMMING

Python (gravipy, sympy, numpy, scipy, piplot) • Mathematica • \LaTeX

CONFERENCES

WDS 2022 | speaker

Week of doctoral students
Jun 2022 | Prague, CZ

- comparing linearised and exact solution in quadratic gravity

BH WORKSHOP XIV | speaker

Black Hole Conference
Dec 2021 | Aveiro, PT

- presenting results on the Schwarzschild–Bach Black Holes

RELATIVITY SEMINAR ITP | talk

Relativity Seminar of the Institute of Theoretical Physics
Dec 2021 | Prague, CZ

- speaking about spherically symmetric solutions in quadratic gravity

ICPS 2019 | poster presentation

International Conference of Physics Students
Aug 2019 | Cologne, DE

- presenting results of the Bachelor's thesis on conformally related spacetimes

EXPERIENCE

GAUK | co-researcher

Charles University Grant
Study of the exact black-hole solutions
2021 – 2023 | Prague, CZ

FYKOS | co-organiser

Correspondence competition in physics for high school students
2016 – 2020 | Prague, CZ

- creating and solving physics problems
- organising popularising lectures and excursions
- tutoring