

# Curriculum Vitae

## Personal information

Name: Tomáš Málek  
Born: September 28, 1982  
Address: Na Bílé husi 1073  
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Czech Republic  
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## Professional experience

2012 – Postdoctoral research fellow, Institute of Mathematics, Academy of Sciences of the Czech Republic

## Education

2007 – 2012 Ph.D. in Theoretical Physics, Institute of Theoretical Physics, Faculty of Mathematics and Physics, Charles University in Prague

Dissertation: General Relativity in Higher Dimensions  
Advisor: Mgr. Vojtěch Pravda, Ph.D.  
Defended: March 16, 2012  
(publicly available from <http://arxiv.org/abs/1204.0291>)

2002 – 2007 Master in Theoretical Physics, Institute of Theoretical Physics, Faculty of Mathematics and Physics, Charles University in Prague

Thesis: Global Characteristics of Fields in Spacetimes with a Non-vanishing Cosmological Constant  
Advisor: doc. RNDr. Pavel Krtouš, Ph.D.

## List of Publications

- [1] S. Hervik, T. Málek, V. Pravda, and A. Pravdová, "Type II universal spacetimes," arXiv:1503.08448 [gr-qc].
- [2] T. Málek, "Extended Kerr–Schild spacetimes of any dimension," *J. Phys. Conf. Ser.* **600** (2015) 012040.

## List of Publications (continued)

- [3] T. Málek and V. Pravda, “Higher dimensional type N and III solutions of Einstein gravity and quadratic gravity,” in *Proceedings, 13th Marcel Grossmann Meeting (MG13)*, pp. 1071–1073. 2015.
- [4] T. Málek, “Extended Kerr–Schild spacetimes: General properties and some explicit examples,” *Class. Quant. Grav.* **31** (2014) 185013, arXiv:1401.1060 [gr-qc].
- [5] T. Málek, *General relativity in higher dimensions*. PhD thesis, Faculty of Mathematics and Physics, Charles University in Prague, 2012. arXiv:1204.0291 [gr-qc].
- [6] T. Málek and V. Pravda, “Types III and N solutions to quadratic gravity,” *Phys. Rev.* **D84** (2011) 024047, arXiv:1106.0331 [gr-qc].
- [7] T. Málek and V. Pravda, “Kerr–Schild spacetimes with an (A)dS background,” *Class. Quant. Grav.* **28** (2011) 125011, arXiv:1009.1727 [gr-qc].
- [8] T. Málek and V. Pravda, “Higher dimensional Kerr–Schild spacetimes with (A)dS background,” *J. Phys.: Conf. Ser.* **314** (2011) 012111.

## Conference contributions and workshops

Gravity — New Perspectives from Strings and Higher Dimensions,  
July 19–24, 2015, Benasque, Spain.

14th Marcel Grossmann Meeting MG14,  
July 12–18, 2015, Rome, Italy.  
Contribution: Extended Kerr–Schild spacetimes

Spanish Relativity Meeting ERE2014, Almost 100 years after Einstein’s revolution,  
September 1–5, 2014, Valencia, Spain.  
Contribution: Extended Kerr–Schild spacetimes of any dimension

20th International Conference on General Relativity and Gravitation GR20  
July 07–13, 2013, Warsaw, Poland.  
Contribution: Algebraically special exact solutions of quadratic curvature gravity theories

Relativity and Gravitation — 100 Years after Einstein in Prague,  
June 25–29, 2012, Prague, Czech Republic.

## Conference contributions and workshops (continued)

Gravity — New Perspectives from Strings and Higher Dimensions,  
July 17–29, 2011, Benasque, Spain.

Spanish Relativity Meeting ERE2010, Gravity as a Crossroad in Physics,  
September 6–10, 2010, Granada, Spain.  
Contribution: Higher Dimensional Kerr–Schild Spacetimes  
with (A)dS Background

Croatian Black Hole School,  
June 21–25, 2010, Trpanj, Croatia.

Week of Doctoral Students WDS09, 18th Annual Student Conference  
June 2–5, 2009, Prague, Czech Republic.  
Contribution: On Type D Spacetimes in Higher Dimensions

## Seminar talks

Extended Kerr–Schild spacetimes,  
March 21, 2014, Department of Mathematics and Natural Sciences, Univer-  
sity of Stavanger

Extended Kerr-Schild spacetimes: General properties and some explicit ex-  
amples,  
December 14, 2012, Current Problems in Numerical Analysis, Institute of  
Mathematics, Academy of Sciences of the Czech Republic

A class of exact solutions to quadratic gravity,  
May 3, 2011, Relativistic seminar, Institute of Theoretical Physics, Faculty  
of Mathematics and Physics, Charles University

Higher dimensional Kerr-Schild spacetimes with an (A)dS background,  
April 8, 2011, Current Problems in Numerical Analysis, Institute of Mathe-  
matics, Academy of Sciences of the Czech Republic

Kerr-Schild spacetimes with an (A)dS background,  
March 15, 2011, Relativistic seminar, Institute of Theoretical Physics, Fac-  
ulty of Mathematics and Physics, Charles University