

Curriculum Vitae of prof. RNDr. Jiří Podolský, CSc., DSc.

Born: September 28, 1963 in Mladá Boleslav, Czech Republic.

Address: Charles University in Prague, Faculty of Mathematics and Physics,
Institute of Theoretical Physics, V Holešovičkách 2, 180 00 Prague 8, Czech Republic.

Webpage: <http://utf.mff.cuni.cz/~podolsky/>

Education and academic qualifications: In 1982-1987 studies of Mathematical Physics (RNDr. degree), in 1987-1993 Ph.D. student at the Faculty of Mathematics and Physics, Charles University in Prague, supervisor Prof. Bičák (CSc. degree). In 2001 Habilitation (doc. degree) in Theoretical Physics, Charles University in Prague. In 2006 awarded a Doctor of Science degree (DSc.) by the Academy of Sciences of the Czech Republic. In 2011 Professor (prof. degree) in Theoretical Physics, Charles University in Prague.

Scientific career and current position: Graduate Assistant (1990-1991) at the Department of Physics and Astronomy, University of New Mexico (Albuquerque, USA). Assistant (1991-1995), Senior Assistant (1995-2001), Associate Professor (2002-2011) and Full Professor (since 2012) at the Institute of Theoretical Physics, Faculty of Mathematics and Physics, Charles University in Prague.

Recent research in relativistic physics: Theoretical studies in general relativity, in particular generation, geometrical investigation and physical interpretation of exact solutions of Einstein's field equations which represent gravitational waves (spacetimes with a cosmological constant, impulsive waves in flat and curved backgrounds, gyratons, asymptotic behavior of fields, geodesic deviation, chaotic motion of particles). Classification and interpretation of other types of exact spacetimes, including the study of rotating and accelerating black holes. Exact solutions of the Einstein equations in higher-dimensions, their algebraic classification. Further generalizations of Einstein's gravity.

Monographs: Co-author of the monograph *Gravitation: Following the Prague Inspiration* (A Volume in Celebration of the 60th Birthday of Jiří Bičák), Singapore: World Scientific, 2002.

With Jerry B. Griffiths author of the monograph *Exact Space-Times in Einstein's General Relativity* published in the series Cambridge Monographs on Mathematical Physics: Cambridge University Press, 2009, 540 pages. Revised paperback edition in 2012, 548 pages.

Citations: 166, without self-citations 155 (SCOPUS, March 2016).

Articles: More than 80 articles in refereed international journals (Physical Review Letters, Physical Review D, Classical and Quantum Gravity, Journal of High Energy Physics, General Relativity and Gravitation, Physics Letters A, Journal of Mathematical Physics, etc.), of which 12 in the past 5 years. More than 20 contributions to conference proceedings. Referee of papers submitted to professional journals, diploma theses, dissertations and research proposals.

Citations: 945, without self-citations 657, h-index 18 (WOS, March 2016),
1098, h_{HEP}-index 20 (INSPIRE-HEP, March 2016).

Foreign contacts and research stays (selection): Since 1996 regular contacts with Prof. Griffiths, Loughborough University, UK (22 joint publications in leading journals and the monograph *Exact Space-Times in Einstein's General Relativity*, Cambridge, 2009). Collaboration with Dr. Ortaggio from University of Trento, Italy (since 2000, 9 joint publications). Other contacts during short-term visits, e.g., with Prof. Finley and Prof. Cahill, University of New Mexico, Albuquerque, USA (1990-1991), Prof. Kramer, Friedrich-Schiller Universität, Jena, Germany (1995), Prof. Frolov and Dr. Zelnikov, University of Alberta, Edmonton, Canada (2009, 2 joint publications), Prof. Edgar, Linköping University, Sweden (2009), DAMPT, University of Cambridge, UK (2011), Dr. Kubizňák, Perimeter Institute, Waterloo, Canada (2015), Prof. Steinbauer, University of Vienna, Austria (since 1999, regularly since 2011, 4 joint publications).

Memberships in academic organizations:

International Society on General Relativity and Gravitation (since 2003).

Union of Czech Mathematicians and Physicists (since 2006).

Czech Physical Society (since 2006).

International Astronomical Union (since 2009).

Academic recognition:

Honorable Mention, Awards for Essays by Gravity Research Foundation (1992).

The First Prize in Physics, Bolzano Foundation, Prague (1998).

Significant Activity in Popularization of Physics Award, Czech Physical Society (2007).

The Best Monograph Award, Dean of the Faculty, Charles University (2009).

Participation in grants: Series of 6 GAČR grants *Relativistic physics and astrophysics*, 1993-2013 (Bičák). GAČR grant 202/08/018 *Exact solutions in higher dimensional and classical gravity*, 2008-2011 (Podolský). Series of 4 GAUK grants on *Relativistic theory of gravitation, astrophysics and cosmology*, 1993-2003 (Bičák). EPSRC grant *Exact properties of spinning and accelerating black holes*, 2005-2007 (Griffiths). 6 visiting grants from the Royal Society and the London Mathematical Society, 1997-2004. Research program *Physical study of objects and processes in the solar system and in astrophysics*, 2007-2013 (Bičák). *Centre for theoretical astrophysics*, 2006-2011 (Palouš). GAČR grant P203/12/0118 *Spacetimes and fields in higher dimensional and classical gravity*, 2012-2016 (Podolský). MOBILITY Project Austria-Czech Republic 7AMB13AT003, *Mathematical aspects of impulsive gravitational waves*, 2013-2014 (Podolský and Steinbauer). GAČR Excellence in Basic Research grant *Albert Einstein center for gravitation and astrophysics*, 2014-2018 (Bičák).

Pedagogical activities: Regular lectures on classical mechanics, electrodynamics, general relativity, mathematical methods of physics, differential geometry, history of physics etc. Supervisor of 4 Ph.D., 9 Master and 6 Bachelor students. Teaching Coordinator (garant) for Bachelor and Master Study Programs of Physics at the Faculty of Mathematics and Physics, Charles University in Prague (since 2004 to date).

Outreach: More than 30 pedagogical articles in Czech and translations of 13 popular-science books on various topics within the field of theoretical physics and astronomy. Approximately 80 public lectures and lectures for secondary school students.

Prague, March 2016