Martin Topinka – *curriculum vitae*

Personal Info

Professional Address:	Astronomical Institute AV ČR, Ondřejov, Czech Republic
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E-mail:	Martin.Topinka@googlemail.com
Born:	9. 9. 1976 in Praha, Czech Republic
Nationality:	Czech
Family status:	single
Home address:	Taussigova 1171, Praha 8, 182 00, Czech Republic

Education

2005 – 2006 part of the PhD within EARA Marie-Curie fellowship at Max-Planck Institute for Astrophysics in Garching, Germany, supervised by Hendrik C. Spruit

2003 – nowadays postgraduate studies of Theoretical physics and Astronomy and Astrophysics at Charles University in Prague, Czech Republic, Faculty of Mathematics and Physics in co-operation with Astronomical Institute of Czech Academy of Sciences in Ondřejov, Czech Republic.
PhD thesis project: "The role of magnetic field in GRB models"
Supervisor: René Hudec, Marián Karlický

1997 – 2002 MSc. degree (spec. Astronomy and Astrophysics) at Charles University in Prague, Faculty of Mathematics and Physics; Astronomy and astrophysics.
Master thesis: "GRB: Origin and correlation"
Supervisor: René Hudec, Astronomical Institute, Academy of Sciences of Czech Republic.

Summer Schools, Lectures, Short-term Study Stays

2006 INTEGRAL 3rd Data Analysis Workshop at ISDC in Versoix, October 2006, Switzerland

2006 Astrophysical Spring School – Observing the X- and Gamma-ray Sky in Cargese/Corsica April 2006, France

2005 International School of Space Science – Gamma-ray Bursts: From Astrophysics to Cosmology in l'Aquila 2005, Italy

2004 ENIGMA winter school – *Physics of jets in blazars* in Jerisjarvi, Finland

2002 XIV. Canary Islands IAC winter school – *Dark matter and dark energy in the Universe*, in Tenerife, Spain

2002 Working visit at Institute of TESRE CNR, Bologna, Italy

Conferences, talks and posters

2006 Talk *MHD in jets* at 5th BART & INTEGRAL workshop in Vlašim, Czech Republic

2006 Talk *Combined analysis of GRB data from INTEGRAL instruments ISGRI, PICsIT, SPI and JEM-X with OSA software package* at 5th BART & INTEGRAL workshop in Vlašim, Czech Republic

2006 Talk *Double-peaked light-curves of GRBs with strong prompt optical emission* at 5th BART & INTEGRAL workshop in Vlašim, Czech Republic

2006 Poster *Simulation of magnetic field dissipation in astrophysical jets* at IAU conference in Prague, Czech Republic

2005 Talk *First steps of 3D simulation of magnetic field dissipation in gamma-ray bursts* at 4th BART & INTEGRAL workshop in Jindřichuv Hradec, Czech Republic

2005 Talk *Simulation of 3D magnetic field dissipation in gamma-ray bursts* at Astrophysical Sources of High Energy Particles and Radiation conference in Torun 2005, Poland

2004 Talk *Structure of gamma-ray burst host galaxies* at 3rd BART & INTEGRAL workshop in Chocerady, Czech Republic

2004 Talk *The role of magnetic field in gamma-ray bursts* at WDS conference in Praha, Czech Republic

2004 Talk *Wavelets in astronomy, using wavelets in gamma-ray bursts* at Astrophysical seminar in Praha, Czech Republic

2003 Talk *Gamma-ray burst host galaxies - merging supermassive black holes?* at Tuorla observatory, Finland

2003 Talks *Structure of gamma-ray burst host galaxies*,*Correlation between BATSE gamma-ray burst and supernovae*, *GRB 030501: Further analysis*, at 2nd INTEGRAL progress meeting in Kostelní Střimelice, Czech Republic

2003 Posters *Search for correlation between BATSE gamma-ray bursts and supernovae*, *Correlation between the decomposed lightcurve and spectral behavior (GRB 030501)*, *BART - recent results* at Gamma-ray burst symposium – 30 years from discovery in Santa Fe, USA

2003 Particle acceleration in astrophysical objects conference in Kraków, Poland

2003 Talk *Search for correlation between BATSE gamma-ray bursts and supernovae* at Gamma-ray burst and supernovae – 10 years of SN1993J conference in Valencia, Spain

2002 Posters *Lobster Eye X-ray Telescope* and *X-ray Monitoring of GRBs with Lobster Eye* at Texas in Tuscany: XXI Symposium on Relativistic Astrophysics – Florence, Italy

2002 Talk *Hot problems in gamma-ray burst science* at 1st BART & INTEGRAL workshop in Senohraby, Czech Republic

\+ many additional posters within Ondřejov's High Energy Astrophysics working group...

Other Professional

- Since 2006 member of Pierre Auger ultra high energy cosmic rays detector working group at Institute of Physics of Czech Academy of Sciences
- Member of the BART-telescope team since 2001
- Member of secondary INTEGRAL Science Data Center (ISDC) Ondřejov since 2003 specialized on gamma-ray bursts, member of international INTEGRAL gamma-ray burst group
- Member of LOC of I., II., III., IV. and V. INTEGRAL & BART workshops, 2002–2006

Popularization

- Topinka, Martin: *Zapeklité záblesky gama*, popular talk at the observatory of Jindřichuv Hradec, 2005
- Topinka, Martin: *Veškerá věda je kosmologie – inflace*, popular talk at the observatory of Jindřichuv Hradec, 2004
- Topinka, Martin: *Stopařuv Pruvodce po záblescích gama* in Astropis, 2004
- Editor of cosmological section of scientific web magazine Essentia

Knowledge of Languages

Czech (native language), English (very good), French (good), German (poor), Spanish (poor), Polish (poor)

Technical Abilities

Computer abilities (Unix/Linux, C/C++, Python, Perl, Fortran, IDL, Mathematica, html/php), driving-license

Objectives

The main part of my work is: gamma-ray bursts, blazars and soft-gamma-repeaters, numerical simulations, MHD simulations of jets, magnetic field reconnection, high energy data reduction and data analysis for INTEGRAL, RHESSI and Swift satellites, BART team, data visualization, popularization.

Hobbies

Nature, travelling, art, tennis, floorball, snowboarding, literature, Shadowrun, music, tai-ji, archeoastronomy.

Reviewed (or Submitted) Publications

- M. Topinka and M. Karlický: Simulation of magnetic field dissipation in astrophysical jets, IAU Conf. Proc., 2006
- J. Polcar, M. Topinka, D. Nečas, N. Masetti, G. Pizzichini, R. Hudec: *Search for correlations between BATSE gamma-ray bursts and supernovae* in A&A, 452, 439, 2006
- M. Topinka, H.C. Spruit and M. Karlický: *Magnetic field dissipation in gamma-ray bursts* Astrophysical Sources of High Energy Particles and Radiation AIP Conf. Proc. 801, 2005
- Jelínek, M.; Kubánek, P.; Hudec, R.; Nekola, M.; Topinka, M.; Štrobl, J.: *BART - Burst Alert Robotic Telescope* The Astrophysics of Cataclysmic Variables and Related Objects, Proceedings of ASP Conference Vol. 330,481, 2005
- S. Mereghetti, D. Gotz, M. I. Andersen, A. J. Castro-Tirado, J. Hjorth, R. Hudec, K . Hurley, M. Topinka, N. Produit, P. Ubertini: *GRB 040403: A faint X-ray rich Gamma-ray Burst discovered by INTEGRAL* Astronomy and Astrophysics, Volume 433, Issue 1, April I 2005, pp.113-116
- G. Pizzichini, P. Ferrero, M. Genghini, F. Gianotti and M. Topinka: *The* E_{peak}^{rest}–E_{rad} *correlation in GRBs in the BATSE catalog*, astro-ph/0503264, 2005, accepted in A&A, 2006
- Polcar, Jiří; Topinka, Martin; Pizzichini, Graziella; Palazzi, Eliana; Masetti, Nicola; Hudec, René; Hudcová, Věra: *Search For Correlations Between Batse Gamma-Ray Bursts and Supernovae* Astrophysics and Space Science, Volume 296, Issue 1-4, pp. 485-488
- Polcar, Jiří; Topinka, Martin; Hudec, René; Hudcová, Věra; Masetti, Nicola; Pizzichini, Graziella; Palazzi, Eliana: *Search for Correlations Between BATSE Gamma-Ray Bursts and Supernovae* Gamma-Ray Bursts: 30 Years of Discovery: Gamma-Ray Burst Symposium. AIP Conference Proceedings, Vol. 727, held 8-12 September, 2003 in Santa Fe, New Mexico, 2004, p.408-411
- Kubánek, Petr; Jelínek, Martin; Nekola, Martin; Topinka, Martin; Štrobl, Jan; Hudec, René; Mateo Sanguino, TomÃ¡s De J.; de Ugarte Postigo, Antonio; Castro-Tirado, Alberto J.: *RTS2 – Remote Telescope System, 2nd Version* Gamma-Ray Bursts: 30 Years of Discovery: Gamma-Ray Burst Symposium. AIP Conference Proceedings, Vol. 727, held 8-12 September, 2003 in Santa Fe, New Mexico, 2004., p.753-756
- Topinka, Martin: *Further Analysis of GRB 030501*, Gamma-Ray Bursts: 30 Years of Discovery: Gamma-Ray Burst Symposium. AIP Conference Proceedings, Vol. 727, held 8-12 September, 2003 in Santa Fe, 2004., p.213-216

- M. Jelínek, R. Hudec, P. Kubánek, M. Nekola, J. Soldán, M. Topinka, F. Hroch: *BART - Recent Status* in AIPC 662, 520J, 2003
- J. Polcar, R. Hudec, M. Topinka, J. Tichá, M. Tichý, N. Masetti, G. Pizzichini: *Optical Follow-Up Observations of GRBs at the Klet' Observatory* in AIPC, 662, 363P, 2003
- A. J. Castro-Tirado, J. M. Castro Cerón, J. Gorosabel, P. Páta, J. Soldán, R. Hudec, M. Topinka, M. Jelínek: *Detection of an optical transient following the 13 March 2000 short/hard gamma-ray burst* in A&A, 393L, 55C, 2002
- a dozen of GCN reports in behalf of BART team, 2001–2006 and 2 GCN reports in behalf of FRAM team, 2006
- several minor reports in conference proceedings