

# CURRICULUM VITAE

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## Contact information

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## Education

2010 to 2014 Harvard University, Cambridge, MA  
 PhD candidate in Astronomy and Astrophysics, advisor: Matt Holman  
 2008 to 2009 Université de Rennes 1, France  
 MSc in Mathematics, advisor: Yves Coudène  
 Diploma thesis “Propriété de Wada et visualisation des attracteurs étranges”  
 on the attraction basins of a forced pendulum  
 2002 to 2008 Budapest University of Technology and Economics (BME), Hungary  
 MSc in Engineering-physics, advisor: János Kornis  
 Diploma thesis “Adaptive speckle interferometry”  
 on out-of-plane deformation measurement via speckle pattern correlation  
 2004 to 2005 Tampere University of Technology (TTY), Finland  
 Erasmus exchange student in physics and mathematics  
 1996 to 2002 Fazekas Mihály Grammar School, Budapest, Hungary, mathematics department  
 first-class school-leaving certificate, school medal

## Research activity

2009-09 to 2010-08 research assistant at Harvard–Smithsonian Center for Astrophysics (CfA), Cambridge, MA: HATNet and HATSouth ground-based transiting exoplanet projects  
 wavefront propagation simulation for apodizer phase shift measurement  
 2005-01 to 2005-08 research assistant at the Nonlinear Optics Group, TTY: nonlinear optical properties of DR-1 dye

## Teaching activity

2012 autumn teaching fellow for Multivariable Calculus, an undergraduate course at Harvard  
 2011 autumn teaching fellow for Radiative Processes in Astrophysics, a graduate course at Harvard  
 2008 spring teaching assistant for Calculus II for physics students, BME  
 2007 autumn teaching assistant for Calculus I for physics students, BME  
 2006 autumn teaching assistant for Probability Theory for electrotechnical students, BME  
 2006 spring teaching assistant for Probability Theory II for physics students, BME  
 2005 autumn, teaching assistant for the Pólya–Szegő mathematical problem solving seminar,  
 2006 spring and a preparatory course for the International Mathematics Competition, BME  
 2006 autumn  
 2005-06-06 to 06-11 assistant coach of the Finnish and Estonian teams for the International Physics  
 Olimpiad, Kuressaare, Estonia  
 2004 autumn teaching assistant for Computation Theory course, TTY

## Scholarships

2011 to 2012 Philip Putnam Chase Memorial Fellowship

2008 to 2009	Scholarship of the French government
2008 to 2009	Scholarship of Fondation Michel Métivier, Rennes
2006-11-20 to 12-02	Scholarship of the French government for a research trip to ENS rue d'Ulm, Paris
2004 to 2005	Erasmus scholarship for studying at TTY

### Summer schools, conferences, study trips, talks

2014-10-04 to 10-08	poster presented at the Second Kepler Science Conference, Moffett Field, CA
2013-03-07	talk given at the Institute for Theory and Computation lunch talk series, CfA
2012-06-04 to 06-08	Summer School in Statistics for Astronomers, Penn State University, State College, PA
2012-05-14 to 05-17	poster presented at the Testing General Relativity with Astrophysical Systems conference, Cambridge, MA
2011-05-01 to 05-07	poster presented at the Exploring Strange New Worlds conference, Flagstaff, AZ
2009-08-10 to 08-18	poster presented at the XXIVth International Conference of Physics Students, Split, Croatia
2009-04-30 to 05-03	member of the jury of NYIFFF national physics team contest, Szigliget, Hungary
2009-02-15 to 02-20	seminar talk given at Department of Astrophysics, Radboud University, Nijmegen, the Netherlands
2008-01-25	invited consultant on a board meeting of the Technical Advisory Committee of the Hungarian Education Research and Development Institute, Budapest, Hungary
2007-07-01 to 07-21	Institute for Advanced Study–Park City Mathematics Institute Summer School on Statistical Mechanics, Park City, UT
2006-11-20 to 12-02	research trip to ENS rue d'Ulm, Paris, France
2005-05-12 to 05-12	Finnish Optical Days conference, Jyväskylä, Finland
2000-06-16 to 08-12	Arnold E. Ross Young Scholars Program, Ohio State University, Columbus, OH
1999-06-24 to 07-18	Honors Summer Math Camp, Southwest Texas State University, San Marcos, TX. Talk given on generalization of isogonal point on the Spring Conference in 2000, on projective geometry and homogeneous coordinates in 2001.

### Publications in peer-reviewed journals

total accepted	24, see <a href="http://arxiv.org/find/astro-ph/1/au:+Beky_B/0/1/0/all/0/1">http://arxiv.org/find/astro-ph/1/au:+Beky_B/0/1/0/all/0/1</a>
first author	3 of them, in the Astrophysical Journal and the Astronomical Journal.

### University competition results

Rudolf Ortway **International Competiton in Physics:**

special prize, honourable mention (2000), first prize (2005), first prize (2007), first prize (2008), first prize (2012)

**International Mathematics Competition** for University Students:

second prize (2004), second prize (2005), third prize (2006)

University Mathematics Contest (BME): first prize (2004), first prize (2006)

University Physics Contest (BME): special prize (2003)

FIVE national physics team contest: 2nd place (2002), 2nd place (2005), 2nd place (2007)

NYIFFF national physics team contest: 5th place (2003), 6th place (2004), 2nd place (2006), 1st place (2007), 1st place (2008), jury member (2009)

### Secondary school competition results

32nd **International Physics Olimpiad** (Antalya, Turkey): Bronze Medal, 82th place (2001)

33rd **International Physics Olimpiad** (Bali, Indonesia): Gold Medal, 14th place (2002)

Arany Dániel National Mathematics Competition mathematics department rating: 1st place (1999), 1st place (2000)

National Mathematics Competition mathematics department rating: 1st place (2001), 15th place (2002)

Kürschák József National Mathematics Competition: second prize place (2001)

Mikola Sándor National Physics Competition: 7th place (1999), 7th place (2000)

National Physics Competition: 3rd place (2001), 3rd place (2002)

Eötvös József National Physics Competition: third prize (1999), third prize (2000), honourable mention (2001), second prize (2002)

Fényes Imre Memorial Physics Competition: 27th place (2001), 4th place (2002)

Szilárd Leó National Nuclear Physics Competition: 9th place (2002)

Fifth Romanian-Hungarian Pre-Olimpic Competition: 1st place (2001)

Nemes Tihamér National Competition in Computer Science: 14th place (1999), 12th place (2000), 7th place (2001), 28th place (2002)

National Youth Science and Innovation Competition: accentuated honourable mention

## Languages

Hungarian	mother tongue
English	advanced, TOEFL iBT 112/120
French	intermediate, TCF B1

## Skills

Programming	C, python, bash script, php, Microchip PIC assembly, etc.
User skills	$\LaTeX$ , gnuplot, GIMP, inkscape, etc.
Mechanical	soldering, welding, bicycle maintenance
Sports and fun	cycling, unicycling, ultimate frisbee, 3-ball juggling, speleology, sailing
Musical instruments	guitar, tenor recorder, ocarina

## Community service

2013	Volunteer at the Clay Center Astronomy Day
2012	Volunteer at “Cambridge Explores the Universe”, the annual open day at CfA
2010 to 2012	Secretary, Hungarian Association of Massachusetts
2008	Bike Cave (San Marcos, TX) state-funded bicycle repair shop: bicycle maintenance
2007	Time’s UP (New York, NY) civil organization for promoting alternative transportation: bicycle maintenance
2005 to 2009	Critical Mass movement (Budapest, Hungary) for sustainable transportation and urban planning: organization of demonstrations
2002 to 2008	Hungarian Association of Physics Students: administration of the computer network organization of committee meetings organization of a field trip to CERN, ILL, and ESRF