

BENCE BÉKY

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Education

PhD in Astronomy and Astrophysics at Harvard University (expected 2014 May).
MSc in Mathematics at Université de Rennes 1, France (2009).
MSc in Engineering-Physics at Budapest University of Technology, Hungary (2008).

Experience

Performing astrophysical research on **large datasets** in **Python**.
Managed more than 40 computers on five continents for three years, hardware and software.
Performed numerical integrations in **C** for chaos theory research.
Used **Matlab** for image processing to measure deformations with laser speckle image.
Designed and built a **remote velocity sensor device**.
Designed and built a **microcontroller-based** wall clock.
Created an **Android app** to turn data on/off while keeping MMS traffic.
Welded two bicycle frames together to build a tandem.

Publications

Published three first-author papers in the Astrophysical Journal and the Astronomy Journal.
Co-authored 21 other papers published in peer-reviewed astrophysics and astronomy journals.
Presented four posters at international physics and astrophysics conferences.

International competitions

Won first prize four times (2005, 2007, 2008, 2012)
at the Rudolf Ortvyay **International Physics Competiton** for University Students.
Won second prize (2004), second prize (2005), and third prize (2006)
at the **International Mathematics Competition** for University Students.
Won Bronze Medal (82th place, 2001) and Gold Medal (14th place, 2002)
at the **International Physics Olimpiad**.

Leadership

Lectured undergraduate calculus and held graduate astrophysics problem sessions at Harvard.
Held undergraduate probability theory problem sessions, graded calculus homework in Hungary.
Mentoring a first-year graduate student at Harvard.
Helped coach a team in Texas for the Hong Kong Primary World Mathematics Contest.
Helped coach Hungarian teams for the International Mathematics Competition.
Helped coach the Finnish and Estonian teams for the International Physics Olimpiad in 2005.
Served on the jury for NYIFFF, a Hungarian national university physics competition.
Volunteered at two public astronomy events and guest lectured three times at elementary schools
and clubs for the general public.