

# Alexander Rasskazov

Rochester Institute of Technology  
School of Physics and Astronomy  
Building 76 (CAR) • Office: 1240  
54 Lomb Memorial Dr • Rochester, NY 14623  
E-Mail: axr6631@rit.edu

## Education

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### Rochester Institute of Technology (Rochester, NY, USA)

2012 - present

- **Ph.D. candidate** in Astrophysical Sciences and Technology.  
Advisor: Dr. David Merritt.  
Dissertation: Evolution of massive black hole binaries in rotating stellar nuclei and its implications for gravitational wave detection  
Expected graduation: Summer 2017.

### Moscow Institute of Physics and Technology (Dolgoprudny, Russia)

2006 - 2012

- **M.Sc.** in Applied Physics and Mathematics (2010 - 2012).  
Advisors: Dr. Eugene Vasiliev, Dr. Maxim Zelnikov  
Dissertation: Rotational Brownian motion of a supermassive binary black hole in a rotating galactic core
- **B.Sc.** in Applied Physics and Mathematics (2006 - 2010).  
Advisors: Dr. Eugene Vasiliev, Dr. Maxim Zelnikov  
Dissertation: Orbital-averaged motion of stars near the black hole in the center of a non-axisymmetric galaxy

## Research Experience

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### Rochester Institute of Technology

2013 – present

- Graduate Research Assistant, School of Physics and Astronomy.  
Numerical modeling of binary supermassive black hole dynamics in stellar environment; calculation of stochastic gravitational wave background.

## Teaching Experience

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### Rochester Institute of Technology

2012 – present

- Galactic Astrophysics, Teaching Assistant. Instructor: Dr. David Merritt (Fall 2016).
- Cosmology, Teaching Assistant. Instructor: Dr. David Merritt (Spring 2015)
- University Physics I, Teaching Assistant (Fall 2012).

### Moscow Institute of Physics and Technology

2008 – 2010

- Correspondence School of Physics and Technology, Tutor



## Publications

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- “Evolution Of Massive Black Hole Binaries In Rotating Stellar Nuclei: Implications For Gravitational Wave Detection”  
Submitted to Physical Review D (arXiv:1606.07484).  
Rasskazov, A., Merritt, D.
- “Evolution Of Binary Supermassive Black Holes In Rotating Stellar Nuclei”  
Submitted to Astrophysical Journal (arXiv:1610.08555v2).  
Rasskazov, A., Merritt, D.

## Talks

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- “Evolution of massive black hole binaries in rotating stellar nuclei and its implications for gravitational wave detection”, a colloquium talk at Cornell University, Sep 29, 2016
- “Pulsar timing detection of gravitational waves from supermassive black hole binaries in stellar environment” at the International Pulsar Timing Array meeting, Cape Town, South Africa, 27 June - 01 July 2016
- “Pulsar timing detection of gravitational waves from supermassive black hole binaries in stellar environment” at the 28<sup>th</sup> Texas meeting, Geneva, Switzerland, Dec 14-19, 2015
- “Dynamical Evolution of a Supermassive Binary in a Rotating Galactic Nucleus”, MODEST 15 meeting, Concepcion, Chile, March 2-6, 2015
- “Dynamical Evolution of a Supermassive Binary in a Rotating Galactic Nucleus” at “Black holes in dense star clusters” conference, Aspen, USA, January 17-22, 2015
- “Rotational Brownian Motion of a Supermassive Binary in a Rotating Galactic Nucleus”, Astronomical Society of New York meeting, Rensselaer Polytechnic Institute, Troy, USA, November 8, 2014
- “Rotational Brownian Motion of a Supermassive Binary in a Rotating Nucleus”, Astronomical Society of New York meeting, SUNY, Oswego, USA, April 25-26, 2014
- Various talks at Astrophysical Sciences and Technology Research Talks Jamboree, RIT (2013-2016)
- “Orbital-averaged motion of stars near the black hole in the center of a non-axisymmetric galaxy”, MIPT Scientific Conference, Dolgoprudny, Russia, November 24 - 29, 2010

## Grants and scholarships

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- AAS International Travel Grant, 2015
- RIT Graduate Research and Creativity Grant, 2015.
- MIPT Abramov Fund Scholarship, 2008 – 2012

## Technical skills

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- Programming: C/C++, IDL, Fortran
- Mathematical software: Mathematica, NAG Library, Excel
- Operating systems: Linux, OS X, Windows



## Outreach

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- Exhibitor at IMAGINE RIT festival, 2013 – 2015.
- Exhibitor at Science and Technology Entry Program, 2014

## Referees

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- Dr. David Merritt ([merritt@astro.rit.edu](mailto:merritt@astro.rit.edu))  
Professor, School of Physics and Astronomy  
Rochester Institute of Technology
- Dr. Andrew Robinson ([axrsps@rit.edu](mailto:axrsps@rit.edu))  
Director, Astrophysical Sciences and Technology  
Professor, School of Physics and Astronomy  
Rochester Institute of Technology
- Dr. Eugene Vasiliev ([eugvas@lpi.ru](mailto:eugvas@lpi.ru))  
Professor, Lebedev Physical Institute  
Research Assistant, Oxford University
- Dr. Alberto Sesana ([asesana@star.sr.bham.ac.uk](mailto:asesana@star.sr.bham.ac.uk))  
Professor, University of Birmingham
- Dr. Jeremy Schnittmann ([jeremy.d.schnittman@nasa.gov](mailto:jeremy.d.schnittman@nasa.gov))  
Research Astrophysicist, NASA Goddard Space Flight Center

## Biographical Information

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- **Citizenship:** Russian
- **Birth year:** 1989
- **Languages:** Russian (mother tongue), English (near-fluent), French (beginner)