

# CURRICULUM VITAE

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### Research Interests

**Interacting stars:** mass transfer, physical collisions, common envelope physics, stellar populations in dense stellar systems and elliptical galaxies

### Employment

- 2009-present** Assistant Professor, Physics Department, University of Alberta (Canada)
- 2005-2009** CITA Postdoctoral Fellow at the Canadian Institute for Theoretical Astrophysics, University of Toronto (Canada)
- 2002-2005** Theory Postdoctoral Fellow at the Northwestern University (USA)

### Degrees

- Jan 2003** **D.Phil.** in Astrophysics, awarded by the University of Oxford. Thesis "*Slow mergers of massive stars*". Adviser: Philipp Podsiadlowski.
- Jun 1995** **M. Sc.** with honors (*Summa Cum Laude*) in Astronomy and Mathematics, awarded by the St. Petersburg State University (Russia).  
Senior Thesis: "*Differential Rotation of Massive Main-Sequence Stars*".  
Adviser: Pavel Denissenkov.

### Education

- 1998-2001** Graduate student at the University of Oxford, in Astrophysics
- 1995-1997** Graduate student at the St. Petersburg State University (Russia), the Astronomy Department
- 1990-1995** Undergraduate student at the St. Petersburg State University, Faculty of Mathematics and Mechanics, the Astronomy Department

### Long-term scientific visits

- 2009, Jan-Apr** Visiting Reseacher, KITP, Santa Barbara (USA)
- 2006, Nov-Dec** Visiting Reseacher, MPfA, Garching (Germany)
- 2006, Jan-Feb** Visiting Reseacher, KITP, Santa Barbara (USA)
- 2001 -2002** Visiting Scholar at the Northwestern University (USA), Department of Physics and Astronomy, with V. Kalogera, F. Rasio and R. Taam
- 1999, Jun-Sep** Visiting Graduate Student at MPfA, Garching (Germany), with H. Spruit
- 1997-1998** Visiting Graduate Student at the University of Oxford (UK), in Astrophysics, with Ph. Podsiadlowski

### Awards and Fellowships

- 2009-now** Canada Research Chair in Astronomy and Astropysics
- 2007-2008** Tremaine Fellowship
- 2005-2008** CITA Fellowship
- 1998-2001** Dulverton Scholarship
- 1998-2001** Overseas Research Student (ORS) Award
- 1997-1998** OSI/FCO Oxford Chevening Scholarship
- 1994-1995** Title "Soros Student" and Scholarship from Soros Foundation

### Astrophysics community service

**Reviewer** for **ApJ** and **ApJL** (Astrophysical Journal and Astrophysical Journal Letters), **MNRAS** (Monthly Notices of the Royal Astronomical Society), **A&A** (Astronomy & Astrophysics), **PASJ** (Publications of the Astronomical Society of Japan), **PAZh** (Astronomy Letters).

- 2010** Contributor to "White Papers" (Long Range Plan 2010) for Canadian Astrophysics, on four different topics, by the request of CASCA
- 2009** NSERC proposals reviewer
- 2009** CFHT proposals reviewer
- 2009** Sharknet fellowships reviewer
- 2005** NSF review panel
- 2005** Co-organizer for **MO**deling **DE**nse **ST**ellar systems conference (see <http://www.astro.northwestern.edu/MODEST6/>)

### External funding as primary investigator

- 2009-2014** NSERC Discovery “Interacting Stars” (\$30,00/year for 5 years)
- 2004-2005** Chandra theory grant “*X-ray binary formation in elliptical galaxies: the role of dynamical processes*”(\$76,235)

### Supervision

- from Sep 2009** Adviser of postdoctoral fellow **Marc van der Sluys**.
- from Sep 2009** Adviser of master student **Tyrone Woods**.
- 2008-2009** Adviser of undergraduate NSERC summer student **Ashleigh Ingle**, for the research project on collisions of a main sequence star with a white dwarf.
- 2006-2007** Adviser of undergraduate student **Eric Chan** (University of Toronto), for the research project on blue stragglers.
- 2005-2008** Co-adviser of external undergraduate student **Olek Sadowski** from the University of Warsaw (studies of the black holes population in dense stellar systems).
- 2005-2008** Co-adviser of graduate student **Tassos Fragos** on projects with mass-transferring binaries (Northwestern University).
- 2002-2005** Co-adviser of undergraduate students at Northwestern University: **Mike Henninger** (binary evolution of ultra-luminous X-ray sources and other binaries with compact objects, evolution through the mass-transfers phases), **Ryan O’Leary** (dynamical evolution of a dense sub-cluster of black holes, intermediate mass black hole formation) and **Laura Blecha** (intermediate mass black hole in dense stellar systems: close binary interactions and mass transfers).

**Invited and review talks at international conferences**

- 2010**      *“Evolution of Binaries in Dense Stellar Systems ”* Binary Star Evolution: Mass Loss, Accretion, and Mergers, Jun 21-25, 2010, Mykonos, Greece, review talk
- 2009**      *“Population synthesis and mergers in dense stellar systems ”* Stellar Mergers, Sep 21-Oct 2, 2009, Lorenz Center, Leiden, the Netherlands, invited talk
- 2009**      *“Formation and Evolution of Compact Objects in Dense Clusters”* Formation and Evolution of Globular Clusters, Jan 12-16, 2009, KITP, Santa Barbara, USA, invited review
- 2008**      *“Formation and evolution of low-mass X-ray binaries and millisecond pulsars in globular clusters”* KIAA opening symposium, Jul 24 - 27, Beijing, China, invited review
- 2007**      *“Binary population synthesis models and comparisons to recent observations”, “A Population Explosion: The Nature and Evolution of X-ray Binaries in Diverse Environments”*, St. Petersburg Beach, Florida, 29 October - 2 November, invited review
- 2007**      *“Formation of Millisecond Pulsars in Globular Clusters”, “40 Years of Pulsars: Millisecond Pulsars, Magnetars, and More”*, Montreal, August 12-17, invited talk
- 2006**      *“Population Synthesis with Dynamics”*, JD06 on “Neutron Stars and Black Holes in Star Clusters” at XXVIth IAU GA, Prague, August 13-25, invited talk
- 2006**      *“Stellar Dynamics & Feedback Connections to Stellar Evolution”*, JD14 on “Modeling Dense Stellar Systems” at XXVIth IAU GA, Prague, August 13-25, invited talk
- 2005**      *“Population Synthesis with Dynamics”*, conference “MODEST-6”, Evanston, August 29-31, invited review
- 2004**      *“Formation and Evolution of Compact Binaries in Globular Clusters”*, conference “Interacting Binaries: Accretion, Evolution and Outcomes”, Cefalu, July 4-10, invited talk
- 2004**      *“Binary Evolution and Neutron Stars in Globular Clusters”*, Aspen, conference “Binary Radio Pulsars”, Jan 11-17, 2004, invited talk

### Seminars and Colloquiums

- 2010, Apr** Rochester Institute of Technologies (Rochester, USA)
- 2008, Apr** University of Alberta (Edmonton, Canada)
- 2008, Feb** University of Chicago (Chicago, USA)
- 2008, Feb** Northwestern University (Evanston, USA)
- 2007, Feb** SUNY at Stony Brook (Long Island, USA)
- 2007, Jan** Space Telescope Science Institute (Baltimore, USA)
- 2007, Jan** Vanderbilt University (Nashville, USA)
- 2006, Dec** Northwestern University (Evanston, USA)
- 2006, Nov** Max-Planck-Institut fuer Astrophysik (Garching, Germany)
- 2006, Oct** University of British Columbia (Vancouver, Canada)
- 2006, May** McGill University (Montreal, Canada)
- 2006, Mar** McMaster University (Hamilton, Canada)
- 2005, Jul** Los-Alamos National Lab (Los-Alamos, USA)
- 2004, Oct** Dartmouth college (Hanover, USA)
- 2004, Oct** Institute for Advanced Studies (Princeton, USA)