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Research Interests

stellar astrophysics, stellar multiplicity, high energy astrophysics, stellar populations, hydrodynamics, numerical method

Education ____

2017 - Present PhD candidate in Physics

University of Alberta, Edmonton

Major: Astrophysics

Thesis: "Binary Evolution and Magnetic Braking"

Advisor: Prof. Natalia Ivanova

2015 - 2017 Master of Science in Physics

University of Alberta, Edmonton

Major: Astrophysics

Thesis: "Select Topics in Mass Transfer and Magnetic Braking"

Advisor: Prof. Natalia Ivanova

2010 – 2015 Undergraduate Degree in Physics

University of Alberta, Edmonton

Major: Astrophysics

Research

IN PROGRESS The Effect of Magnetic Braking on Neutron Star Low Mass X-Ray Binaries

Supervised by Prof. Natalia Ivanova

Fall 2014 Black Hole Binaries in Globular Clusters

Undergraduate research project Supervised by Prof. Natalia Ivanova

WINTER 2013 Finding a Pattern in the Outbursts of SS Cygni

Undergraduate research project

Supervised by Prof. Gregory Sivakoff

Teaching Experience

Jan 2018 – Mar 2018	Marker for undergraduate astronomy course University of Alberta
SEPT 2017 – DEC 2017	Teaching assistant for graduate stellar astrophysics course University of Alberta
Jan 2017 – Mar 2017	Volunteer at the University of Alberta observatory University of Alberta
SEPT 2016 – DEC 2016	Teaching assistant for graduate stellar astrophysics course University of Alberta
SEPT 2015 - APR 2016	Teaching assistant for second year physics lab University of Alberta

Publications

- In Prep Population Studies of Low Mass X-ray Binaries *Van, K. X.*, Ivanova, N. et al.
 - 2017 Formation of Black Hole X-Ray Binaries With Non-Degenerate Donors in Globular Clusters Ivanova, N.; da Rocha. C.A.; *Van, K. X.*; Nandez, J.L.A Astrophysical Journal Letters
 - 2017 Stability of mass transfer from massive giants: double black-hole binary formation and ultra-luminous X-ray sources
 Pavlovskii, K.; Ivanova, N.; Belczynski, K.; *Van, K. X.*Monthly Notices of the Royal Astronomical Society

Presentations and Talks _____

- 2018 "Low Mass X-ray Binaries: Population at Roche Lobe Overflow" 22 May 2018 - 26 May 2018, Victoria, Canada, poster
- 2017 "Low Mass X-ray Binaries: Population at Roche Lobe Overflow" 30 May 2017 1 June 2017, Edmonton, Canada, poster
- 2017 "Stability of Mass Transfer from Massive Giants" 20 March 2017 - 24 March 2017 Santa Barbara, USA, poster
- 2016 "Population Study of LMXBs Using Standard Magnetic Braking in MESA" 23 Sept 2016, Edmonton, Canada, talk
- 2016 "Stability of Mass Transfer from Massive Giants" 24 July 2016 30 July 2016, Cambridge, England, poster presentation

Conferences and Workshops _____

May 2018 CASCA (Victoria, Canada)

May 2017 CASCA (Edmonton, Canada)

Spring 2017 The Mysteries and Inner Workings of Massive Stars (Santa Barbara, USA)

July 2016 Binary Stars in Cambridge (Cambridge, England)