

Kenny X. Van

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Research Interests

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

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 & Employment

- SEPT 2017 - PRESENT The Effect of Magnetic Braking on Neutron Star Low Mass X-Ray Binaries
 Graduate research
 University of Alberta
 Supervised by Prof. Natalia Ivanova
- SEPT 2015 - AUG 2017 Select Topics in Mass Transfer and Magnetic Braking
 Graduate research
 University of Alberta
 Supervised by Prof. Natalia Ivanova
- FALL 2014 Black Hole Binaries in Globular Clusters
 Undergraduate research project
 University of Alberta
 Supervised by Prof. Natalia Ivanova
- WINTER 2013 Finding a Pattern in the Outbursts of SS Cygni
 Undergraduate research project
 University of Alberta
 Supervised by Prof. Gregory Sivakoff

Awards

- FALL 2018 Queen Elizabeth II Scholarship (Doctoral Level, \$7500)

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

- Dec 2018 Low Mass X-ray Binaries: The Effects of Magnetic Braking Prescription
Van, K. X., Ivanova, N., Heinke, C. O.
Monthly Notices of the Royal Astronomical Society
- July 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
- Feb 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

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

Conferences and Workshops

AUG 2018 MESA Summer School (Santa Barbara, USA)

MAY 2018 CASCA (Victoria, Canada)

MAY 2017 CASCA (Edmonton, Canada)

MARCH - MAY 2017 The Mysteries and Inner Workings of Massive Stars (Santa Barbara, USA)

JULY 2016 Binary Stars in Cambridge (Cambridge, England)