

Kenny X. Van

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Research Interests

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

Education & Employment

- 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

- SEPT 2017 - PRESENT The Effect of Magnetic Braking on 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)
- SUMMER 2016 FGSR Graduate Travel (Master’s Level, \$1500)

Teaching Experience

SEPT 2019 – DEC 2019	Teaching assistant for graduate stellar astrophysics course Marker for graduate computational physics course University of Alberta
JAN 2019 – MAR 2019	Marker for undergraduate astronomy course University of Alberta
SEPT 2018 – DEC 2018	Teaching assistant for graduate stellar astrophysics course University of Alberta
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

Proposals

2019	"Resources for Research Groups Competition", Compute Canada Awarded 314 CPU core years and 6 GPU core years
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Publications

Nov 2019 ACCEPTED	Evolving LMXBs: CARB Magnetic Braking Van, K. X. , Ivanova, N. Astrophysical Journal Letters
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

- June 2019 “Inverse Population Synthesis: Searching for the Origins”
16 June 2019 - 20 June 2019, Montreal, Canada, poster
- 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

- JUNE 2019 CASCA (Montreal, Canada)
- MAY 2019 Westgrid Summer School (Calgary, Canada)
- AUG 2018 MESA Summer School - TA (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)

Professional Service

- 2018 - PRESENT Graduate representative of Canadian Astronomical Society (CASCA)
- 2017 - PRESENT Seminar and astro journal club organizer for UAlberta astronomy group

Outreach

- OCT 2019 Judge for NASA/CSA Space Apps Challenge
Edmonton, Canada