

A. C. Schwartz

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Quinsigamond Community College
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Education and Awards

Ph.D., M.S. Physics, Physics and Astronomy, University of Wyoming (Laramie, WY). M.S. May 2014, Ph.D. expected May 2019. Thesis title: *"Astronomical Databases: Novice/Expert Characteristics in Learners, and Quasar Clustering."* Additional graduate course work in Science Education (research methods). UW Presidential Fellowship; Wyoming NSF EPSCoR Wyoming Women in Science and Engineering travel grant (Spring 2014, Fall 2014); Graduate Student Enhancement grant (Summer 2014); Outstanding Teaching Assistant Award (Spring 2015).

M.S. Astronomy, University of Massachusetts (Amherst, MA). May 2003. Additional graduate course work in Science Education (pedagogy). NSF GK-12 Fellowship.

B.A. Physics and Math, Alfred University (Alfred, NY). May 2000. National Merit Scholarship Finalist; Alfred University Scholar (full tuition, room, board); Magna cum laude; Alfred University Honors Society; Honors within the field of specialization: Mathematics, Physics; Metzger Prize in Astronomy; Alpha Lambda Delta GPA; Outstanding Senior nominee.

Experience

Professor of Physics and Integrated Science, Quinsigamond Community College (Worcester, MA). August 2004-present (leave of absence Fall 2012-Spring 2015). Algebra-based physics, calculus-based physics, Astronomy 101, Integrated Science: Earth & Space. Course/curriculum development experience. Modalities used include traditional (lecture and lab on-ground), online, hybrid, summer.

Instructor, University of Wyoming. Fall 2012. Instructor of record for a 65-student lecture section of Astronomy 101.

Grant Coordinator, University of Wyoming. 2014-2015. Launching Astronomy: Standards and STEM Integration grant from the Wyoming Department of Education. Administrative and instructional duties.

Graduate Research Assistant, University of Wyoming. Summer 2013. Wyoming Department of Education Mathematics and Science Partnership Grant.

Graduate Teaching Assistant, University of Wyoming. 2014-2015.

Instructor, Launch Pad Astronomy Workshop, University of Wyoming. Summers 2013-2014. One-week summer "Astrocamp" for published science-fiction writers, journalists, and editors. Taught one-third of sessions, and performed evaluation on participant outcomes.

Volunteer, University of Wyoming, Sept 2013 – present. Ran and assisted outreach efforts of the Physics and Astronomy department, including sessions for high school students and Homecoming visitors, using Meade telescopes, permanently mounted telescopes, and the Wyoming Infrared Observatory (WIRO).

Current Research Interests

Expert vs. Novice differences in processing large databases in astronomy, 2014-present. Characterizing the work of Astronomy 101 students and in-service STEM teachers on the novice/expert spectrum.

Mentorship in Studio Physics, 2014-present. Using an action research approach to empowering students.

Quasar clustering, 2014-present. Characterizing the 3D clustering properties of radio-loud, radio-quiet, and "radio quiet radio-loud" quasars in SDSS.