

Samir Kušmić

Curriculum Vitae

I am currently an undergraduate at the University of Louisville. I have a thirst for knowledge, especially with the Universe. That's why I pursue my career in astronomy, wanting to focus on extra-galactic astronomy. I want to help lay a foundation for future research to tackle it. I already have done so, with efforts in morphometric analysis research. I want my research to help contribute to our understanding of galaxy populations and galactic evolution, and also have considerable impact with cosmology.

Education

2015–present **University of Louisville, Kentucky**, *Bachelor of Science*, Major: Physics with Astrophysics concentration, Minor: Mathematics.
Total GPA – 3.80, Major GPA – 3.80, College of Arts and Sciences

Research Projects

- 2017 **Measuring Sizes & Shapes of Galaxies.**, *University of Louisville*, Department of Physics and Astronomy.
We looked at morphologies and metrics of galaxies in the CANDELS field in order to understand how viable Source Extractor is at getting parameters. With our research, we try to see if Source Extractor is a good first look for the new, larger surveys that we expect in the coming decade. Research presented at AAS, ACC Meeting of the Minds, and CUWiP. Paper in prep.
- 2018 **Morphological Parameters of Galaxies at $z \sim 8$** , *University of Louisville*, Department of Physics and Astronomy.
We looked at high-redshift galaxies and applied scale-invariant morphology analysis towards the. We attempt to see if there are any trends and if further morphological application is viable for high-redshift surveys. Paper in prep.

Extracurricular

- 2017–2018 **Society of Physics Students**, *University of Louisville*, Held Office of – Social Officer.
My objective was to organize social events for fellow students to hang out and get to know each other. I also had the responsibility to organize the chapter's lab visits.

- 2017–present **Society of Women in Physics and Astronomy**, *University of Louisville*,
Held Office of – Chamberlain (Treasurer).
My objective was budgeting and fund-raising for the group. I would carefully work
a budget and present and plan ideas in order to secure funds for the group's future.

Awards and Achievements

- 2015–present **University of Louisville College of Arts and Sciences Dean's List**
- 2015–2016 **Trustees Scholar, University of Louisville:** Awarded a one semester of
financial aid of 2000 US\$
- 2016–2018 **Academic Commonwealth Scholarship, University of Louisville:** Con-
tinual financial award of 2800 US\$ for as long as I achieve a GPA of a 3.0
- 2017 **Bullitt Best Paper Award in Astronomy Co-Recipient, University
of Louisville:** annual award for best astronomy paper in the university. My
paper was my research poster over my work with Dr. Holwerda: Measuring
the Sizes & Shapes of Galaxies.
- 2018 **James T. Drautman Award Co-Recipient, University of Louisville
Department of Physics and Astronomy:** Annual award given to excellent
sophomores and juniors of the department.
- 2018 **Joined $\Sigma\Pi\Sigma$ (Sigma Pi Sigma) Physics Honors Society**
- 2018 **Bullitt Best Paper Award in Astronomy, University of Louisville:**
annual award for best astronomy paper in the university. My paper was my
research poster over my work with Dr. Holwerda: Morphological Parameters
of Galaxies as $z \sim 8$.
- 2018 **William Marshal Bullitt Scholar, University of Louisville:** Given to
astronomy students with an exceptional undergraduate in studies and research.

Teaching Experience

- 2016–2017 **Tutor**, *University of Louisville REACH Center*, Louisville, KY.
Responsibilities included planning small group sessions, mediating student interac-
tion, facilitating student learning in many introductory physics courses, assessing
the progress of each individual student, and providing end-of-course study session
prior to finals.
- 2017–present **Undergraduate Teaching Assistant**, *University of Louisville PRIMES
Program*, Louisville, KY.
This position had different experiences for every semester I was in it. I taught in a
laboratory and I helped offer students office hours for the elementary astronomy
class. As well, I taught and I helped students during recitation for the freshman
calculus-based physics for classical mechanics, rotational and wave motion, and
thermodynamics.

References

Dr. Benne Holwerda, *University of Louisville*, Associate Professor.

Dr. Gerard Williger, *University of Louisville*, Associate Professor.

Dr. Joanna Bridge, *University of Louisville*, Postdoctoral Researcher.

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