

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

The applicant has demonstrated the strong drive to push a research project forward. They have shown they have the motivation to work on a project independently to see it through. Their proposed research plan has a clearly outlined process and measurable outcomes.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Very Good

Explanation to Applicant

The applicant has already established themselves as a mentor in their current program and wishes to continue working with underrepresented populations in their graduate work. They indicate a strong desire to be a leader in their community for science outreach.

Summary Comments

The applicant has a strong record of undergraduate presentations and completing projects even when presented with obstacles. They have a detailed and fully developed plan for their graduate research and how it will benefit the astronomy community

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

This is a well thought and described project with a potential broad impact. The research plan is well described although it could benefit from setting a more clear schedule and milestones. Overall, it's a solid project with which the applicant is already familiar.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Very Good

Explanation to Applicant

The applicant has a solid background as an observer, in outreach, and as a mentor and teaching assistant.

Summary Comments

This is a well developed project with which the applicant is familiar with and has already contributed to.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

The applicant has a strong academic and research record with a GPA of 3.55 from MSU and multiple REU and other research experiences. She has co-authored one refereed paper related to her research at JPL on exoplanet detection techniques. She has presented and won a best poster award for her senior thesis work on computational galactic chemical evolution. She is currently working as a post-bac researcher analyzing X-ray phase-resolved spectroscopy of quasi-periodic oscillations in recently discovered galactic stellar mass black holes. Her research plan is an extension of this project to study variability in a larger sample of low mass X-ray binaries to constrain the cause of the quasi periodicity. The application is well written and timely given upcoming variability studies and X-ray surveys. Both her letter writers strongly recommend the candidate for a GRFP.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

The applicant has served as a mentor to junior undergraduate students. She is also the public outreach coordinator for Michigan State U and plans to continue developing public outreach programs. With respect to research, the applicant plans to contribute to open source software and has already contributed to Python packages.

Summary Comments

The applicant has a strong academic and research record and clearly has the drive to pursue a PhD in Astronomy.