

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

Carl has already produced quality research meriting a second author publication and enabling him to present at multiple conferences. His research statement was ambitious and demonstrated understanding of some of the key challenges of his research topic. Carl's grades are a bit lower than other applicants, but his reference letters indicate that he is highly motivated and that his coursework improves as the semester progresses. Overall, I am impressed with what Carl has managed to accomplish over the course of his undergraduate career and I think he shows promise to be a very successful graduate student.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

Carl's work advocating for increased representation of minorities in science is admirable and much needed. He also seems passionate about giving back to the physics community through participating in physics organizations, working with community service groups, and through his teaching/mentoring roles at ASU and elsewhere. By creating MESA-Web, Carl has made his research more accessible to students who are new to the field.

Summary Comments

Carl's strong track record in research combined with his work in community outreach makes him a great asset to the physics community.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Very Good

Explanation to Applicant

Extremely (overly?) ambitious and broad-scoped plan. Very strong research experience.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

Significant personal experience and future plans.

Summary Comments

Very strong candidate.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Very Good

Explanation to Applicant

Fields has a strong academic record. While his GPA is not as strong as others' in the applicant pool, he has received a long list of scholarships, awards, and accolades. He has also been very active as a researcher and mentor, and has several published papers. He was selected in a competitive process for a selective summer internship at CalTech, where he is interested in attending graduate school. His proposed research builds nicely on his skills from his published work on asymptotic giant branch stars. Research statement is rather vague on the fundamental questions he wants to address, although they are important questions and will be a great contribution to the field.

Broader Impacts Criterion**Overall Assessment of Broader Impacts**

Excellent

Explanation to Applicant

Involved in a number of organizations, including serving as a national representative for the Society of Black Physicists. He is committed to broadening access to science, and has also served as a tutor and volunteer in a number of outreach opportunities. He built the outreach portal for the stellar evolution code he uses.

Summary Comments

Fields has a strong record of achievement and has been very involved in activities with broader impact. His application's intellectual merit is very good and his broader impacts are excellent.