

Research Proposal Referee Feedback Form
Astronomy 3Y03
Winter 2017

Title of Research Proposal: Characterizing the Photometric Variability and Accretion Disk of V346 Normae

Author of Research Proposal: Ian Fare

1. Does the proposal conform to the presentation standards (e.g. 3 pages in ApJ format/5 pages in single column format, no more than 1 page of references)? If not, please comment.

It is only two pages in length, however the abstract, literature review, and impact sections still need to be filled out. It could therefore be three pages once these sections are input.

2. Is the abstract understandable to a non-expert audience and sufficiently informative? Provide details to support your assessment.

The abstract has not been written yet, so I'm going to have to go with no here. There isn't exactly any text to provide supporting details from...

3. Do you understand what object(s) the author is describing, and what we understand about them so far? Provide suggestions to improve the sections on recent progress and the literature review. Have the authors made enough use of the primary literature?

I understand the FU Orionis stellar class relatively well as a result of reading the proposal. It was clearly articulated that V346 Normae is the first of the FU Orionis stellar class to end an outburst phase and begin a second phase, and therefore it is a great system to study further.

The primary literature was well used to explain the properties of the FU Orionis stellar class, as well as how the accretion disk causes flickering in the brightness. I would however have liked some more explanation of why optically thicker disks better explain the observed flickering behaviour.

Personally, I would also join the literature review section to the recent progress such that you discuss both simultaneously. I think that is the most natural way to start the proposal.

4. Do you understand the objective of the proposed research (observation or calculation) and the methodology? Has the author been specific about what (s)he will do to answer the research question? Provide suggestions to improve these sections.

I understand the broad objective of the proposal: to study the properties of the accretion disk of V346 Normae. However, I am not sure of the exact scientific goal. I feel 'studying the properties of' is too vague a research goal for this proposal. I would like to know exactly what you feel the small scale photometric variations of the star will tell us, and what exactly we hope to learn from these. However, the methodology by which these small-scale variations are hoped to be detected is very well laid out, and very specific. The process by which telescope time would be allotted, and in which individual filters seems well thought out, and in my (limited) opinion, appropriate for the project proposed. I am just not sure about the specific scientific goal hoping to be achieved.

5. Has the author described the anticipated significance of the work in a convincing way? Provide suggestions to improve this section.

The impact section was not completed; however, the author did describe that their research would be 'very impactful', and I think that is pretty convincing.... However, it was mentioned that V346 Normae is the only FU Orionis star that has ended an outburst phase and started a second. He described that studying the variability of V346 Normae will tell us about the accretion disk, which ultimately causes the outburst. However, other than increasing our understanding of this stellar class, no other specific research goal or significance was proposed.

6. Has the author clearly identified and appropriately cited work that is not their own? If not, provide clear examples where additional citations are warranted.

There are a number of correctly cited works in this proposal.

In one instance in the second paragraph of \S1, Kenyon et al. Was improperly formatted in the citation.

I also feel that in the last paragraph of \S1, a citation may be warranted when describing the time periods and characteristics of the V346 Normae outbursts.