	Score of 5/5	3/5	(0-1)/5
Hua (15%)	Clearly states motivation and specific question(s) that the lab is trying to answer. Contextualizes those questions in terms of big-picture astronomical knowledge, and demonstrates understanding of recent progress and open questions in the field.	States motivation and questions, but does not fully contextualize or connect to the literature.	Unclear motivation; driving questions are not stated; little connection to astronomical knowledge as a whole
Haʻalele & Huakaʻi (15%)	Explains the source of the astronomical data and our procedure for analyzing it. Demonstrates understanding of how the data were originally collected and motivates why the chosen analysis procedure was used. Could include a figure to help motivate.	data source is mentioned, but not clearly described. Description of analysis procedure gives step by step process but little justification.	many missing or incomplete aspects of the description. motivation for analysis/procedures is lacking.
Hoʻina & Hāʻina (40%; 20%: getting the correct answers, 20%: visualization, connecting to communal knowledge)	Answers all questions in the lab assignment at an appropriate level of sophistication/accuracy. Includes figures with clearly labeled axes and captions to justify key results and comparisons to other results. Includes thoughtful comparisons to classmates and literature results. Demonstrates understanding of how to interpret the results, and what uncertainties exist: which approximations were made, and how much do they matter, quantitatively.	Components missing; figure labels/descriptions unclear. Lacks comparison to literature and/or classmate results. Little discussion of uncertainties.	Maybe preliminary figures or numbers but lacking most or all results. Little discussion of what the results mean.
References (10%)	Includes multiple journal references, recent if possible. References motivate and give credibility to the hua, hūʻina, and hāʻina sections of the report. They may also be used in the haʻalele and huakaʻi sections as well, if needed.	At least 1-2 references, but not used well to back up the motivation or results.	No references
Code Style (10%)	Code runs end to end and addresses all parts of the lab. Separable blocks are placed into functions. Comments clarify key areas. Documentation strings indicate inputs/outputs.	Very few comments or documentation. Doesn't use functions; all one big block of code. Might be missing pieces.	Code doesn't run; missing key pieces.

Language (10%)	Reads like a scientific paper. Avoids vague/imprecise language and run-on sentences. Level should be appropriate for junior--senior astronomy undergraduates to understand. Organization is clear and logical. Not too much passive voice.	Organization does not flow well or seem logical; language includes some vague or meaningless statements; language is overly simplistic or overly technical, obscuring the meaning of sections of the report.	Report is highly disorganized, possibly disconnected from the material. Appears to show significant lack of understanding.
Notes: (1) you can get up to ~70% even if all your answers and code are wrong -- though you will likely lose some additional points in the huakaʻi, hoʻina, and hā'ina sections if that is the case. (2) turning in your code, which should be consistent with your figures/discussion, is required to get credit for the lab.			