

Proposal Outline: DUE March 25th by 5 PM

(email to astr578besla@gmail.com, LastName_Assignment6.pdf, Subject: Assignment6)

1) Revise Title

2) Revise abstract.

Adhere to word limit: The abstract must be written in standard ASCII and should be no longer than 20 lines of 85 characters of text. Use the HST/JWST Templates.

3) Provide an outline for your proposal (BULLETED POINTS that answer each of the below)

Section 1: Facts, Problem & Summary paragraph

- a) What is the descriptive heading?
- b) 1-2 fact-based paragraphs:
 - i) State the fact leading each paragraph
 - ii) Provide At least one reference per fact/paragraph.
 - iii) What is the nuanced conclusion for each paragraph/fact?
- c) Problem paragraph:
 - iv) What is “the problem” statement?
 - v) Why is it critical to answer now?
- d) The last paragraph:
 - vi) What is the proposal? (identify key component)
 - vii) Why HST/JWST? Does this advance HST/JWST science goals? (Or goals of the observatory you chose)
 - Which **key science goals** of HST/JWST does your proposal connect to ?
 - JWST: <https://webb.nasa.gov/content/science/index.html>
 - HST: <https://www.stsci.edu/hst/about/key-science-themes>

Section 2: The Problem & Motivation/Narrative of the proposal

- a) Identify a descriptive heading that states the problem
- b) State why solving this problem advances the subfield.
- c) Identify the “key component” missing to solve the problem.
- d) List relevant references
- e) Outline a figure to illustrate the problem (can be in words, a sketch)

Section 3: Describe the Target (setting the stage for generating the “Key Component”)

- a) What are you targeting ? (imaging/spectra/archival data of **what astronomical object**, or **what physical mechanism/ simulations/data set**)
- b) State why is the target critical to solving the “problem”?
- c) State the suitability of target → Feasibility with “key component”:
 - For GO: Feasibility of HST/JWST observations (justify HST/JWST usage)
 - For AR/Theory: Identify existing/future HST/JWST data sets (proposal #)
- d) Outline a figure that explains the chosen target (e.g. illustrate the target and connection to “key component” and/or “problem”). (can be in word, a sketch)

Section 4: The Strategy: HST/JWST + Target Solves the Problem (Generate the “Key Component”)

a) Explain the strategy to generate the key component:

For GO: describe the proposed observations *briefly/succinctly*

For AR/Theory: describe *briefly* the analysis method/proposed **usage** of simulations/codes and relation to existing/future HST/JWST data sets.

b) Explain the data products of the program (tangible outcomes).

c) Outline a diagram for your strategy (key component + target = solution) (can be in words, a sketch)

Section 5: Importance & Broader Implications

a) What are the big picture implications of the proposed products of your study to your **subfield** and why do they matter? (How will your study advance the subfield?)

b) How does this study increase the **legacy value** of the observatory?

- What **other subfields** are advanced by these observations (GO) or data analysis/code/simulations (AR) ?
- Do the data products serve the community at large?