UNIVERSITY OF SUSSEX

Extragalactic Astronomy 2017

Hubble Observing Proposal

(weight: 50% of coursework marks)

STScI | SPACE TELESCOPE SCIENCE INSTITUTE

Survey of 100 Brown Dwarfs Within 100pc

Abstract: Disco

Total telescope time requested: 4.9 hr

band/filter	no. of exposures	length of individual exposure	total time (inc. overheads)
e.g.			
J_{f125w}	101	52.5 seconds	4.9 hours

1 Science Motivation

Give some background on the topic in general and describe the main aims of your proposed observations. This is limited to one page and should include appropriate references.

In doing so try to provide answers to the following:

- Which astrophysical questions will you be able to address with the requested data and how does this advance the field?
- Why is the sample/object you plan to observe particularly suitable for addressing these questions?
- Why are observations with the Hubble Space Telescope especially useful for addressing the key science questions you have identified?

References: A. Fox et al. 2005, *Nature*, 444, 78; S. Nova & B. L. Hole 1987, *The Astrophysical Journal*, 45, 8; T. Fringe et al. 2014, *Journal of Pure and Applied Nonsense*, 501, 999

2 Technical Justification

Motivate and describe your choice of instrument, observing strategy and observing time request. Dont forget to add telescope overheads to the actual observing time. Explain what the expected brightness/flux of your sources is and what the significance level is, with which you are aiming to detect your targets (e.g. signal-to-noise ratio S/N=10). This can be as long as you need.