Proposal: D. Sand HST Cycle 26

We request 41 orbits of HST/ACS F814W imaging of a specially chosen sample of nearby galaxies to identify failed supernovae­­­ -- the literal disappearance of a massive star after collapse into a black hole. Based on recent theoretical work on how massive stars end their lives, and the apparent lack of stars >18 M\_sun exploding as core collapse supernovae, we expect to detect ~5­20 failed SNe.

1. What might be the problem(s) to address?
2. What is the “key component”?
3. What is the “Target”?
4. What might be the facts to set the stage?
5. What might be the title?