

Transcript of Q&A from Zoom chat during “Australian LSST Workshop 2020”, 14 Dec 2020.

Following Sarah Brough's presentation:

Daniel Zucker asked: By "next year" for a LIEF grant, do you mean the LIEF LE22 or LE23 rounds?

Rachel Webster replied: It will go in next year (for 2022).

Chris Blake asked: I'd be curious to know more about the in-kind AAT survey you mentioned Sarah, what would that be targeting?

Sarah Brough replied: It was to get an optimal redshift reference sample for WAVES. LSST contains three 2dF fields, one in each of the GAMA12h, GAMA15h and GAMA23h regions, with a photo-z pre-selection of $z < 1$ (and $Z < 21.2$ and $Y < 21.2$ mag).

Following Tara Murphy's presentation:

Nikhil Sarin asked: Is there any work on how deep the constraints on the energetics of a kilonova would be through radio observations with SKA? And what subsequently you could learn about the remnants of BNS mergers based on energetics? I have seen work with current telescopes, but not what the next gen capabilities would be like?

Tara Murphy replied: Dougal Dobie has a paper on that in prep.

Following Karl Glazebrook's talk:

Sarah Brough commented: There will definitely be u-band observations, the question is how many/deep those observations will be.

Karl Glazebrook commented: KWFI is a Swinburne project for a one degree imager on Keck with deep u band emphasis. It can reach LSST 10 year depths in u-band in a few hours. Right now it is under a Keck-funded feasibility study, the PI is Jeff Cooke, I am sure he would appreciate extra science cases.

Following Ilya Mandel's presentation:

Nikhil Sarin asked: I am asking for more of an opinion here. Do you think optical alone provides enough discriminatory power to distinguish some of these transients from other phenomena?

Ilya Mandel replied: For luminous red novae, the answer is probably yes, photometry should be sufficient for inferring ejected mass and explosion energetics.

Following Amanda Karakas' talk:

Ilya Mandel commented: Very interesting that you model the removal of a He envelope from a stripped star (case BB mass transfer) as a possible CE. Thomas Tauris et al. argued that case BB would be dynamically stable for double neutron star progenitors, and I (probably erroneously) assumed that this would likely carry over to WDs.

Ashley Ruitter commented: These 2+ CE systems are also the most “prompt” types of systems in terms of delay times, which makes them important probes of stellar population age (if we can distinguish these multiple-CE sources observationally).

Following Cristina Martinez-Lombilla's talk:

Jielai Zhang asked: What are the masks masking?

Cristina Martinez-Lombilla replied: They are masking any other object that is not a group member. But actually, when studying each galaxy separately, we mask all the sources in the field (foreground stars and galaxies) except the target in order to avoid any spurious contribution to its flux.

Karl Glazebrook asked: Regarding the masking - what about the scattered light and real halos from masked sources outside the mask region? It is indeed a hard problem - you could consider doing control fields where you expect zero signal.

Cristina Martinez-Lombilla replied: We use very extended masks to avoid it as much as possible and we also make a 2nd order sky background analysis on top of the one from the HSC team. If possible, we plan to correct the scattered light of point sources with very extended PSFs