

# Gemini LLP Meeting Notes 20210316

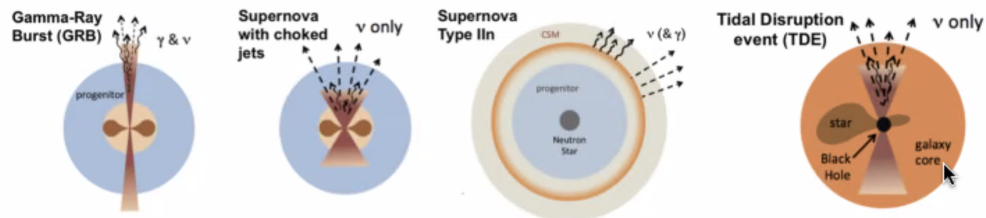
## Context:

5 pages for science justification. Need trigger criteria for subclasses. 20--30 hours per semester Gemini, SNR=10 for r=20 mag source, 30 min (overhead is long). See details in Adam's email

## Sub-team report:

- 1) Adam; SN Ia;  
Use Gemini to observe subclasses, double detonation, Ia-CSM, will not be lots of triggers
- 2) Christoffer; Stripped-envelope team;  
Observe sources with multiple peaks, extreme values of ejecta mass and nickel mass, not sure about interacting ones; late-time spectroscopy (Adam: it will require long exposures; Christoffer: not necessarily)
- 3) Robert; neutrino follow-up:

## Neutrinos with Gemini



- **Aim: complete classification of all optical transients detected coincident with neutrino alerts that meet our criteria, down to 20.5 mag (7 per year 19<20, 10 per year 19>20.5 based on previous triggers)**
- **Continue with our algorithmic candidate selection for possible counterparts -> First Rubin-ready neutrino follow-up program.**
- **Timescales of a few days are not suitable for GRB afterglows, but other neutrino models are well-suited to this timeframe. (Some overlap in triggers with other ZTF science cases e.g TDEs.)**
- **ZTF candidates are often also detected by other neutrino follow-up programs (e.g DECam/Swift). Many are not currently classified by anyone. Public classifications will benefit MMA community.**

- 4) Dan & Lin; SLSNe  
Science goal depends on the overall selling point of the Gemini proposal  
Trigger ~5 per month (30 per semester)
- 5) Yuhan; TDE  
Systematically classify all TDE candidates down to 19.5 peak mag, probe lower mass black holes, 30 triggers per semester
- 6) Steve; infant SNe group  
Late-time nebular spectroscopy of SNe with flash features (Jakob: an additional science goal is to verify SN IIP cosmology)

**Writing Assignment:**

Getting the draft from each sub-group by **next Tuesday**.

We can ask for 30 hours per semester, 45 min per trigger, so 35 triggers per semester.

Demographically, this is 1 trigger per month per subgroup. You can argue for more if your science case is strong.

Each subgroup: ~1/2 page text; 1 figure

Next meeting (last meeting) will be next week.

**Adam's note:**

It is possible (and encouraged) to submit regular proposals in addition to an LLP. so sub-teams can spin off their sections into a normal proposal as well if that is helpful.