Discussion:
TDA+MMS for GW astronomy

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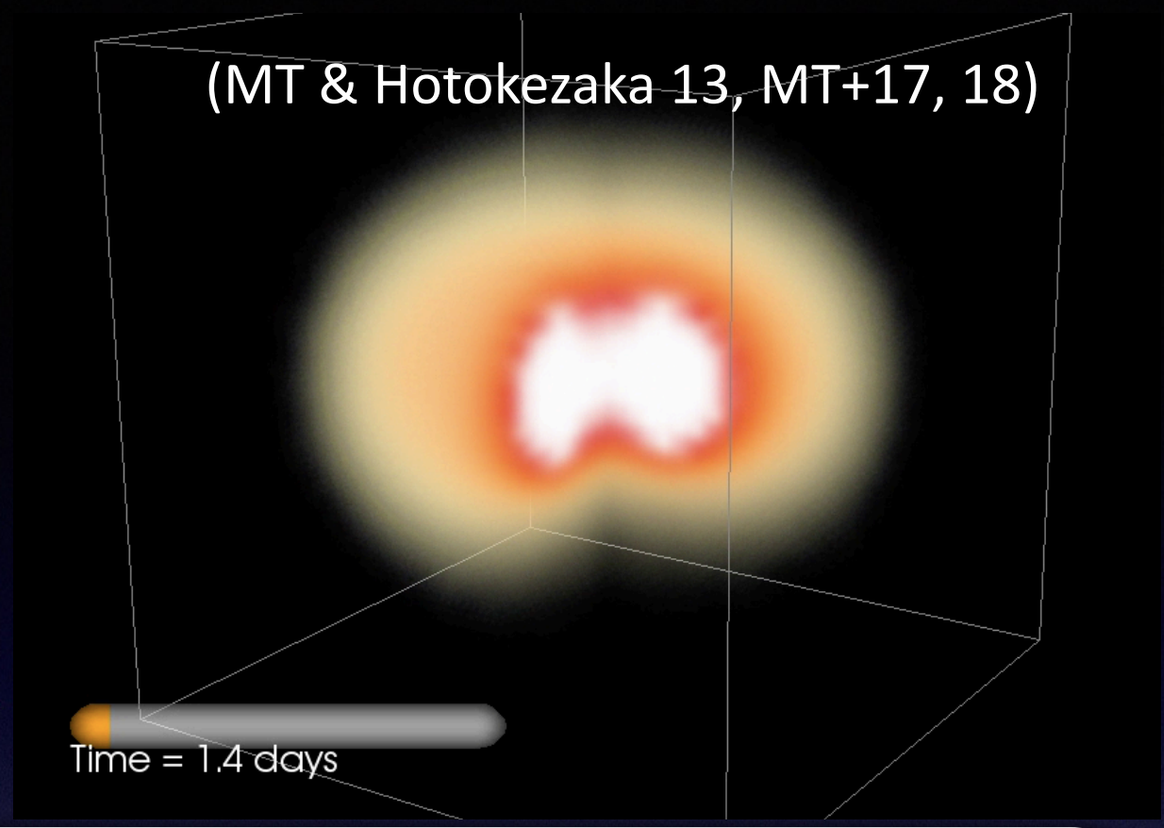
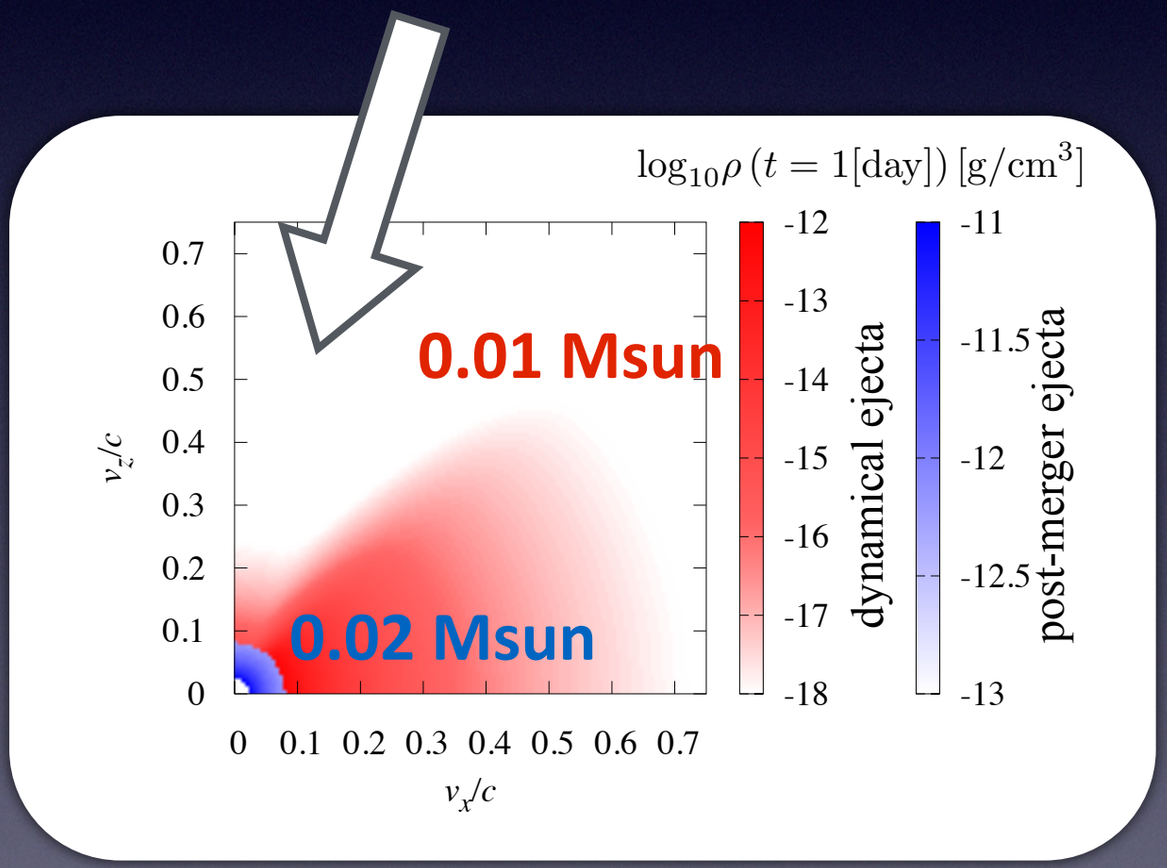
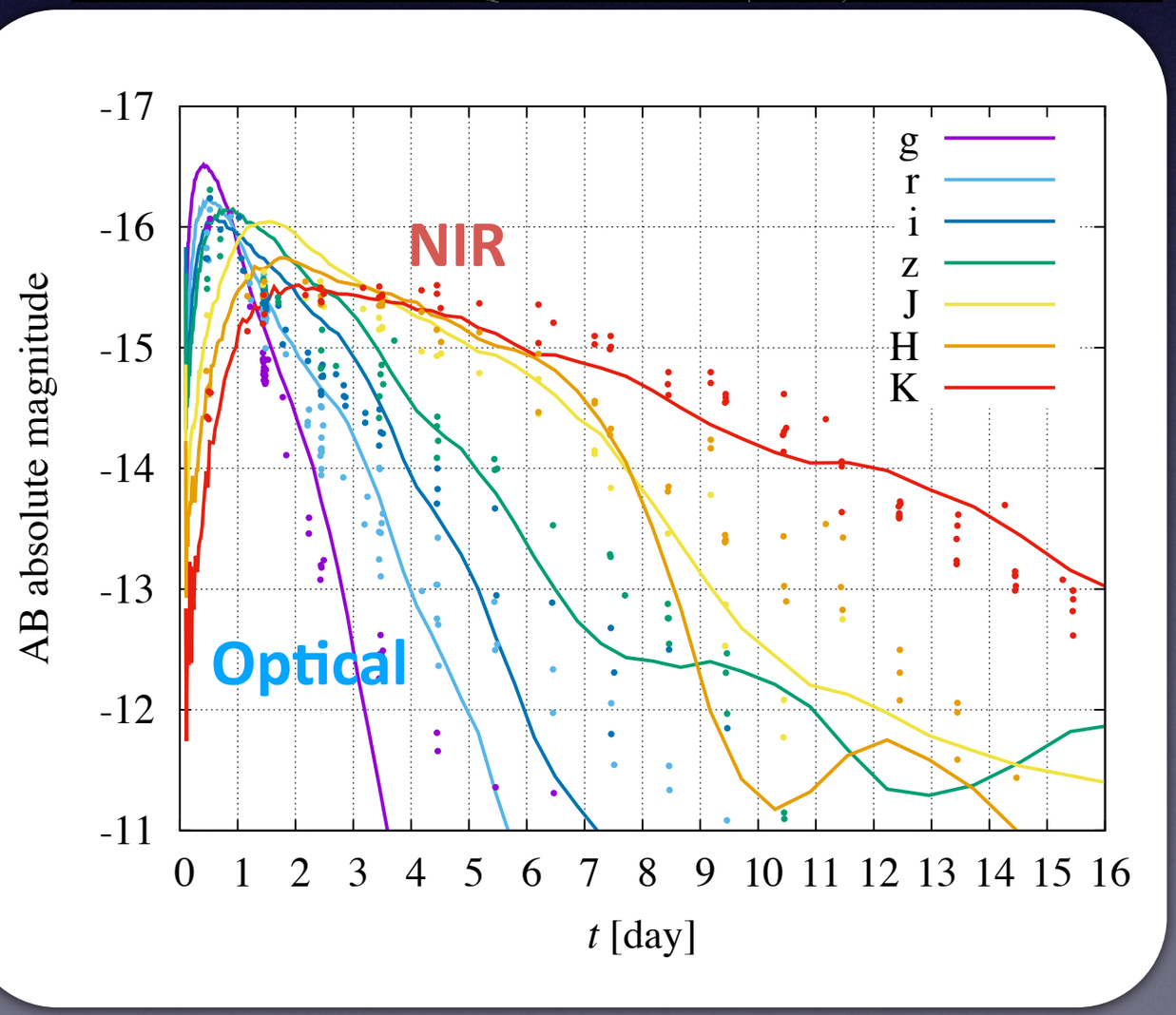
Key questions

- **Physics of NS merger**
  - Mass ejection mechanism
  - Central remnant <= EOS of high-density matter
- **Nucleosynthesis by NS mergers**
  - Variety by NS mass, mass ratio?
- **What about BH-NS merger?**
- **…**

Radiative transfer simulations for NS merger

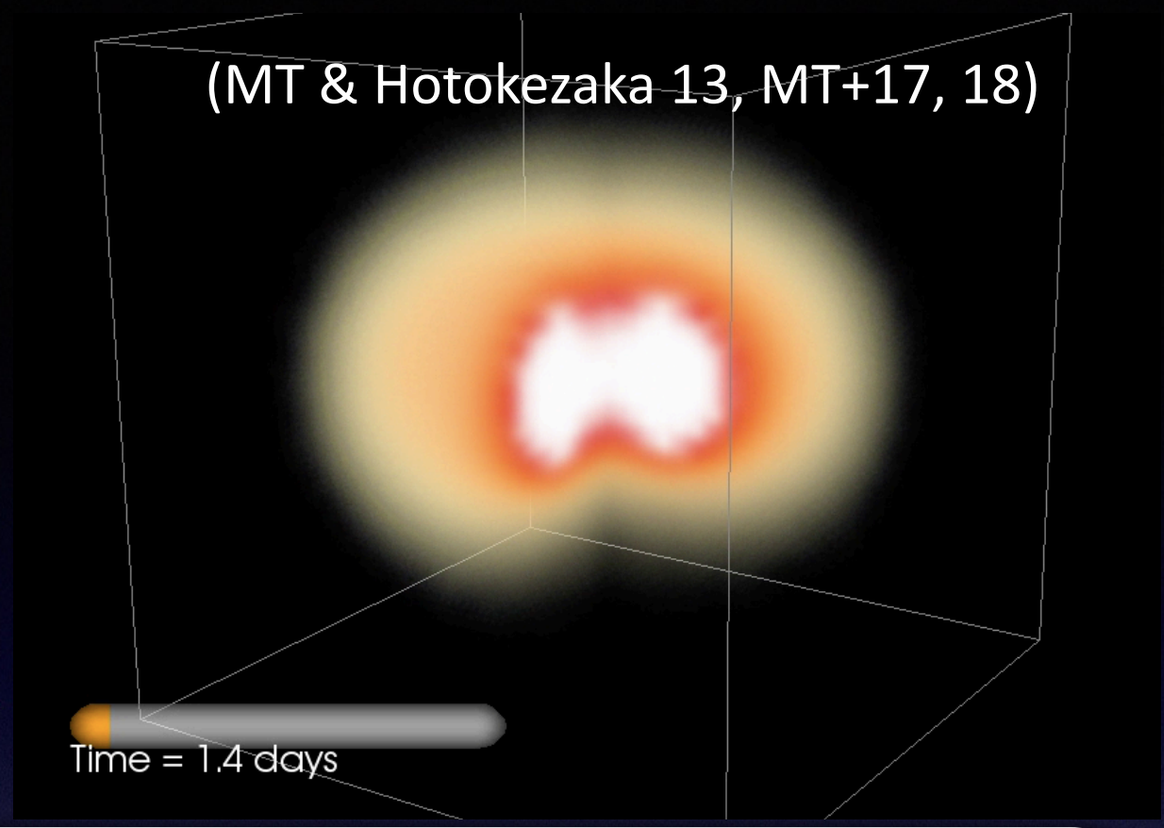


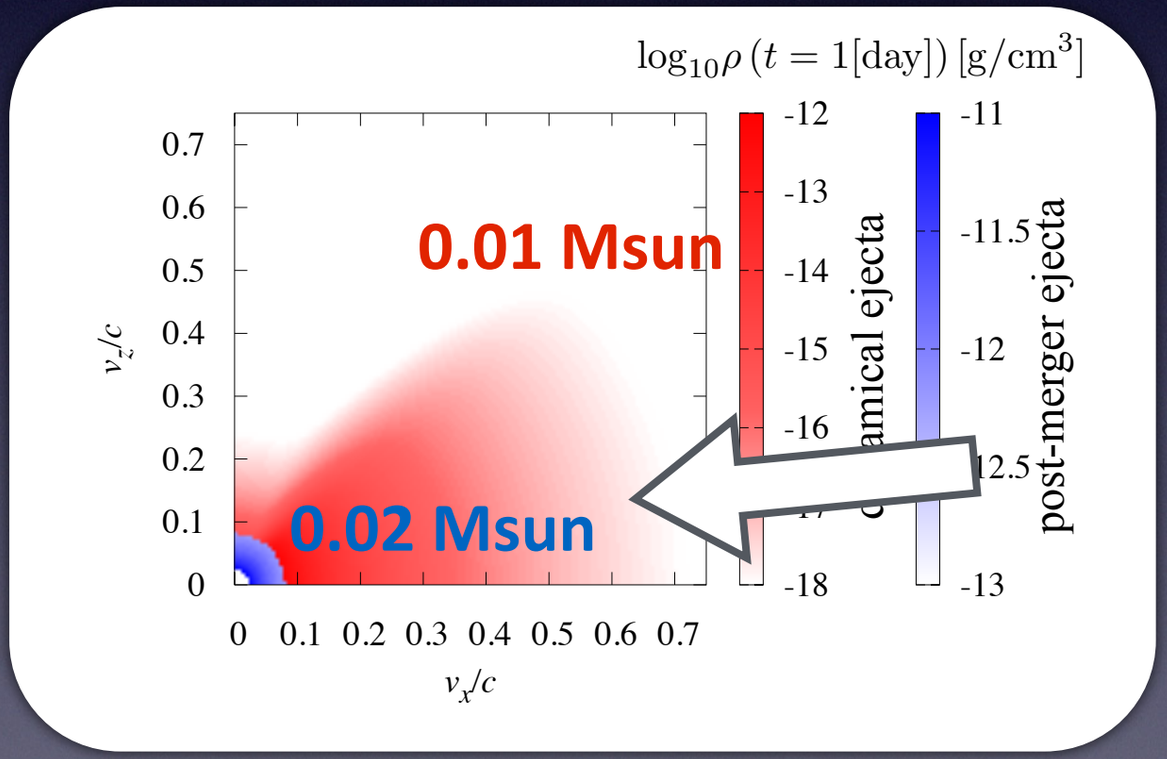


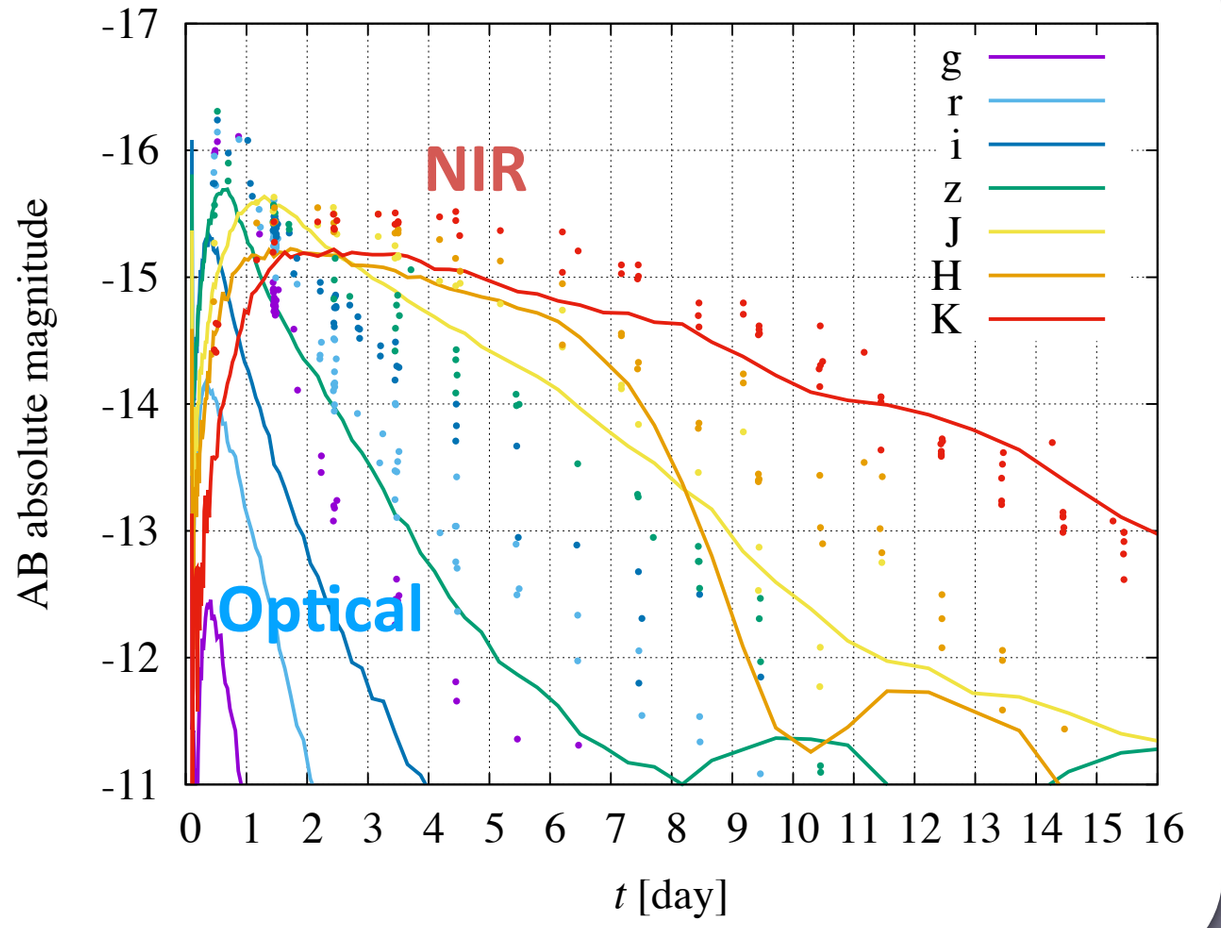


Kawaguchi, Shibata, MT 2018

Radiative transfer simulations for NS merger







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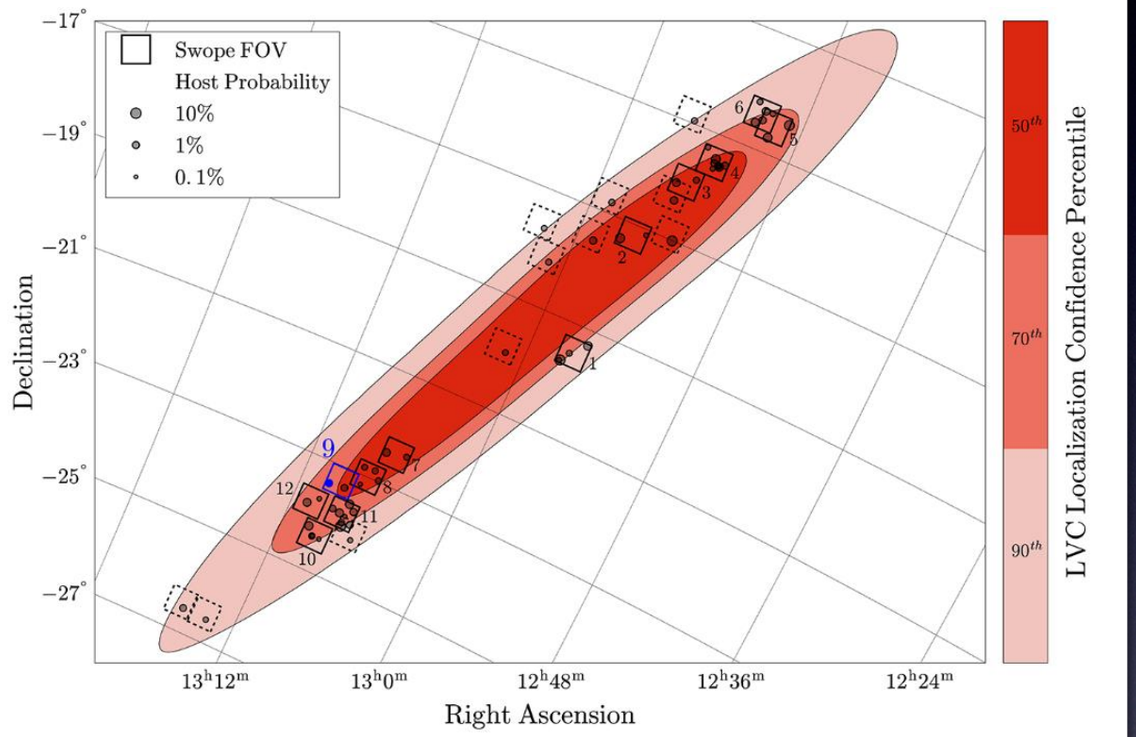
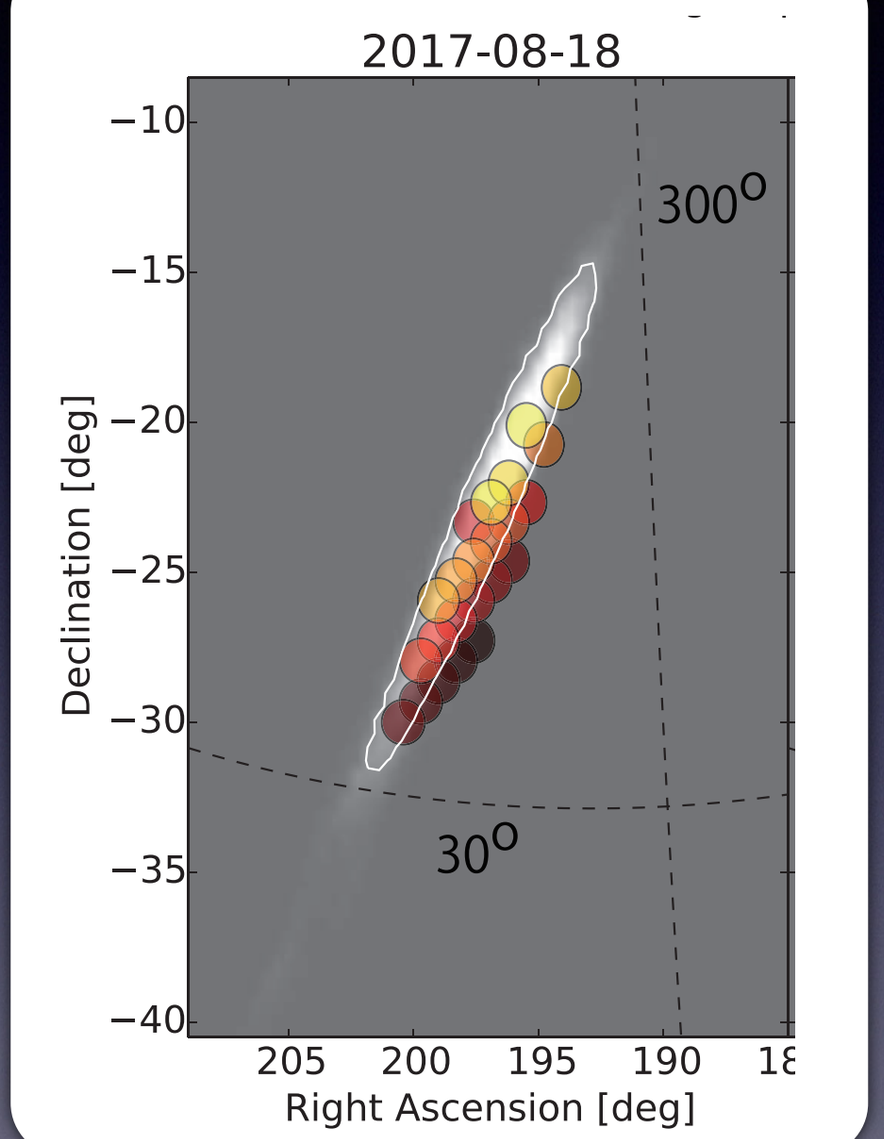
Targeted search



Coulter+17

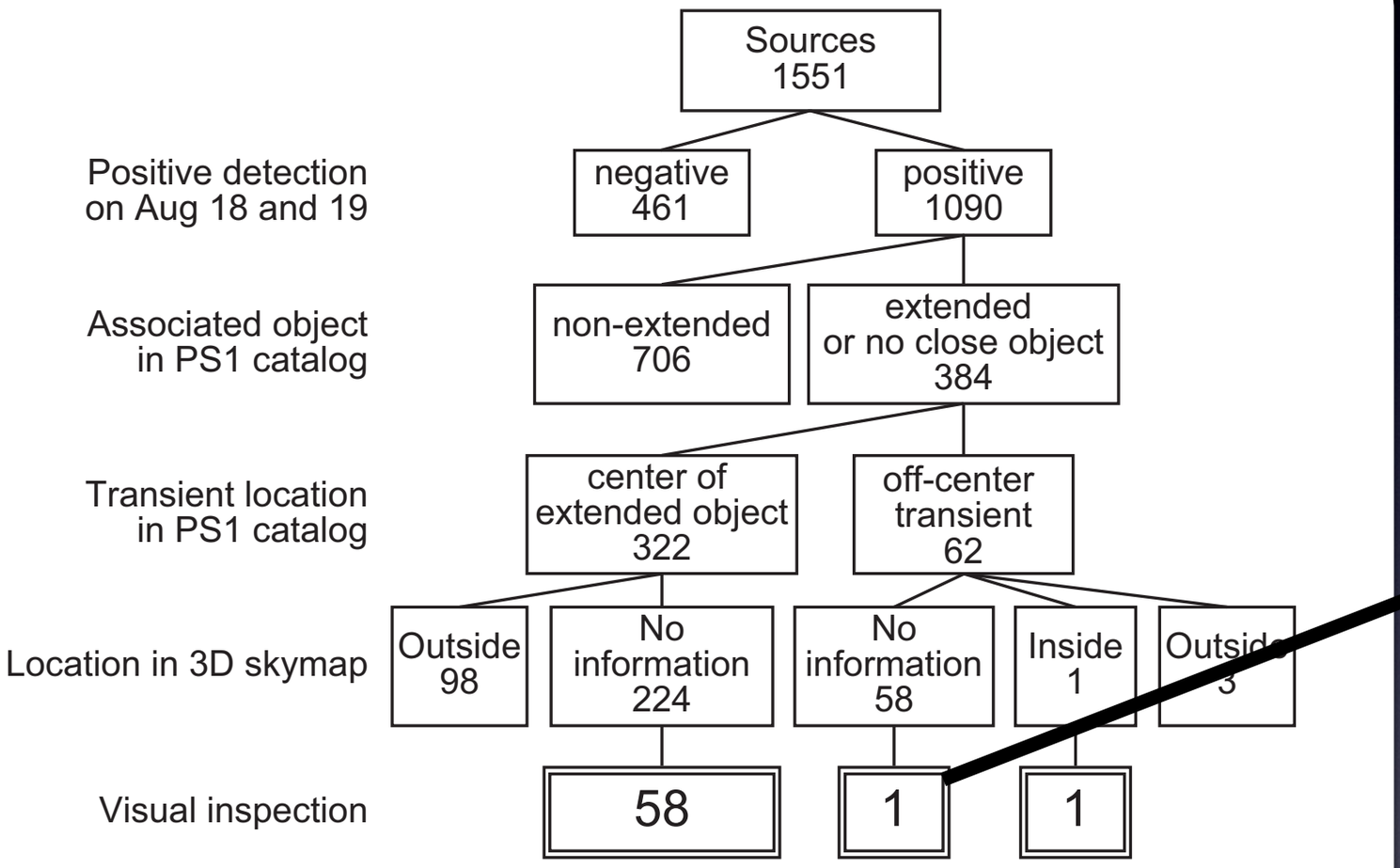
Not complete beyond >~50 Mpc

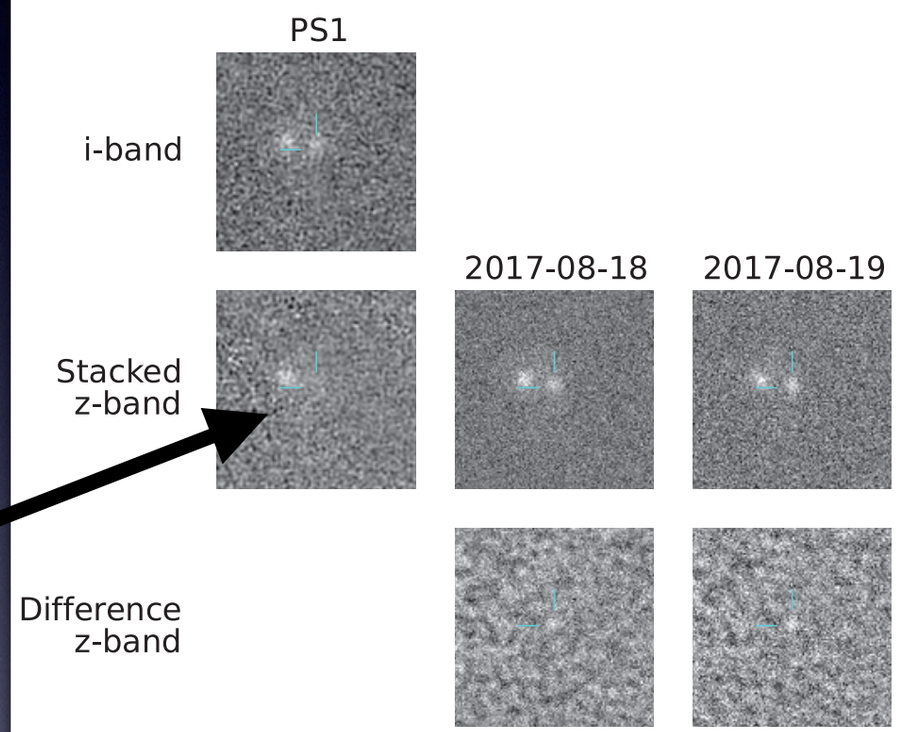
Wide field search



Tominaga, MT, Morokuma+18

Wide field survey
Subaru/HSC 20.6 mag for 23.6 deg²





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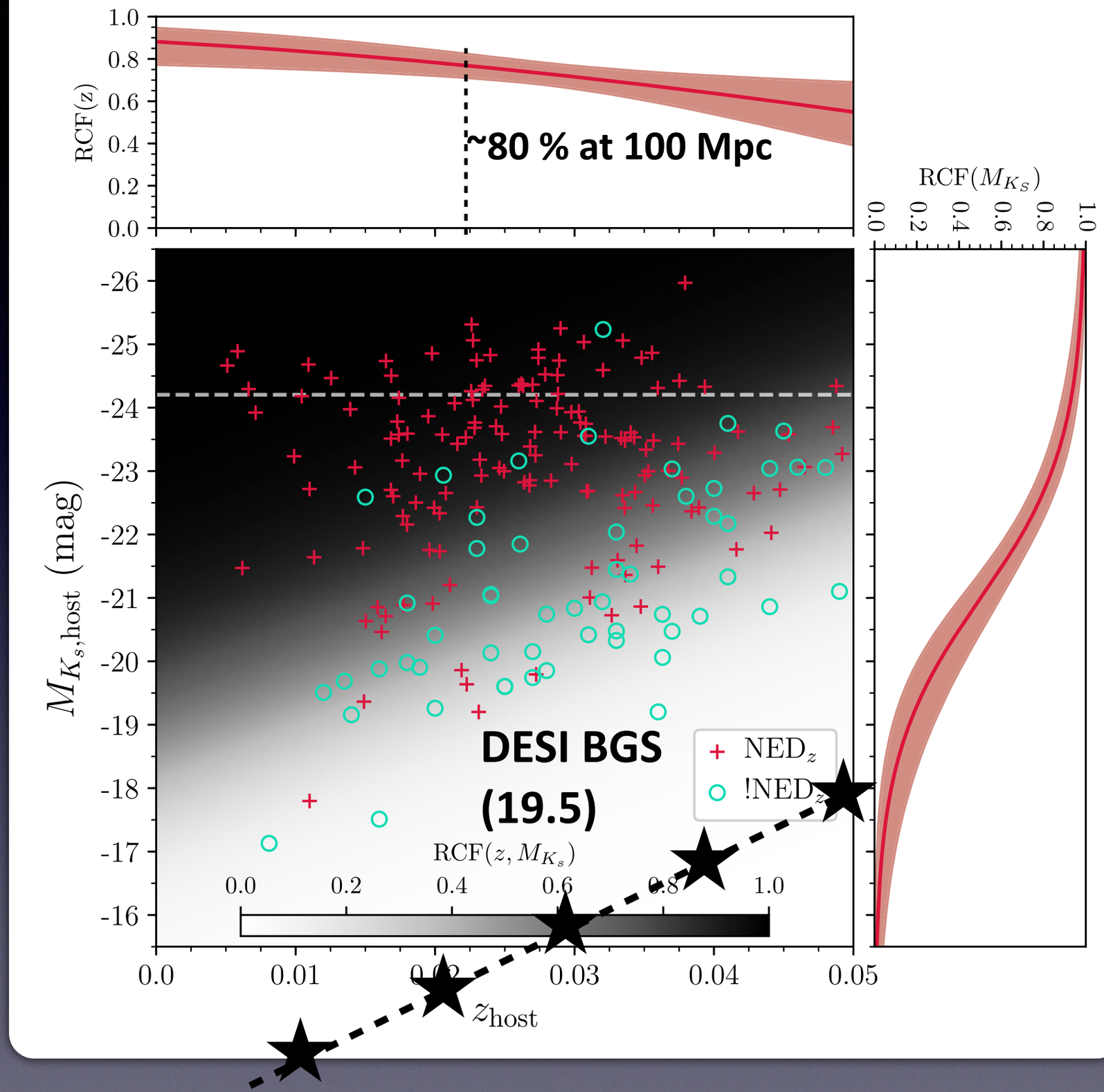
MMS: Spectroscopy for ALL the candidates



Kulkarni+18

MMS: Complete galaxy catalog up to 200 Mpc

Role of MMS for GW astronomy

- **Spectroscopy of all the transient candidates in the GW localization area**
  - DESI? PFS?
  - LAMOST? (fixed along the meridian)
- **Complete galaxy catalog up to 200 Mpc**
  - DESI BGS
  - Targeted survey wins wide-field survey?
- **Anything else?**