IKI/Purdue-GW follow up network

Search for EM counterparts, observations, modeling

Optical observations: based on worldwide IKI/ISON network
Radio observations: BSA at 110 MHz, RT-22 at 36 GHz
Modeling: GBM/Fermi, SPI-ACS/INTEGRAL publically available data
Results: GW170104 - GW170825 search, GW/GRB170817A optical observations, model of the prompt emission
The model

- The jet is launched by Blandford-Znajek (BZ) mechanism
- Accretion rate and jet power decrease as a power law
- We see cocoon emission as a prompt (first pulse)
- Hot shocked wind forms second extended pulse of prompt emission
- Jet is long-lived but ultra relativistic, so we do not see it due to off-axis
- The observed ~2 sec lag results from both the delay of activation of BZ-jet and the jet propagation through expanding envelope