

# Detection Efficiency of Supernovae with the Einstein Telescope

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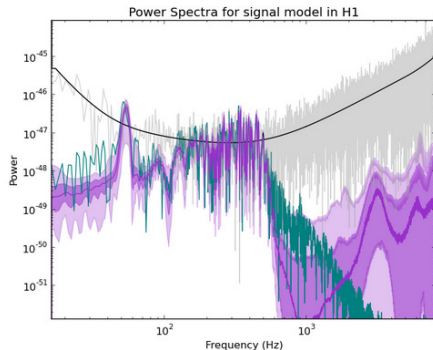
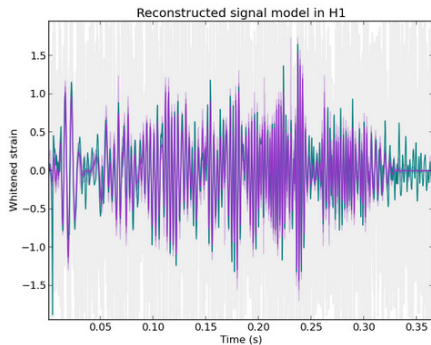
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ET Symposium

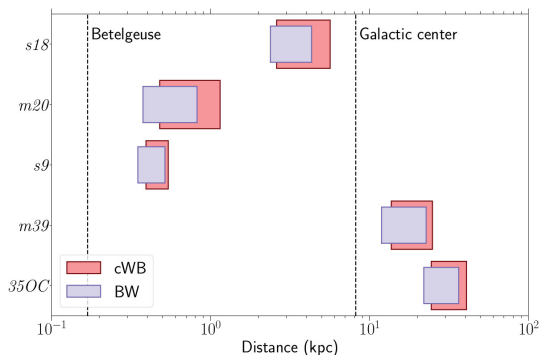
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- ▶ Many different physical processes leading to various features
- ▶ We have to rely on model-independent burst search algorithms, such as BW or cWB



# Previous detection efficiency studies in the LVK

O3 short duration all-sky paper:

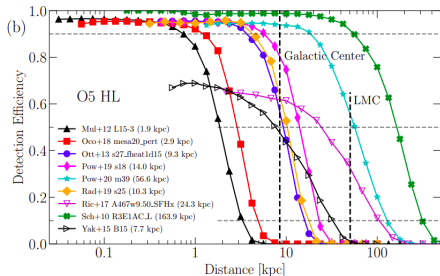
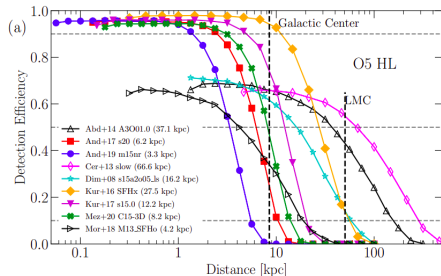


- ▶ Raza, McIver, Dály, Raffai: more detailed study + optimization of BW for SNe: <https://arxiv.org/abs/2203.08960>

# Previous detection efficiency studies in the LVK

Szczepańczyk et al. 2021

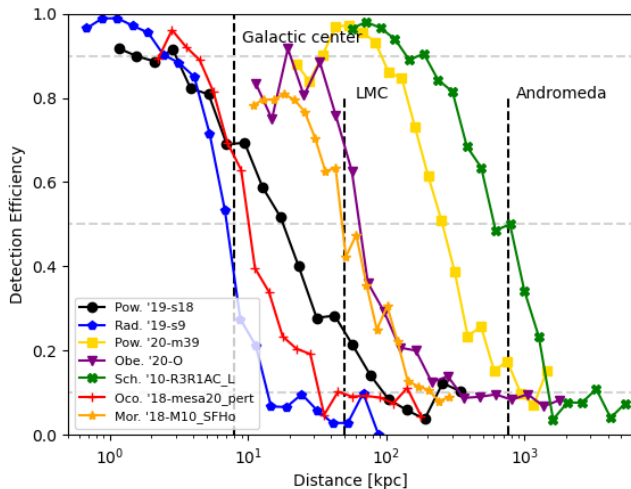
More detailed study with cWB & 18 waveforms:



# Aim of the project

- ▶ Characterize the detection efficiency for ET
- ▶ Using 7 waveform families, do 1000 injections with each
- ▶ Reconstructing them with the SN-optimized BW
- ▶ Compare the results to those with the O5 LVK network
- ▶ Do the reconstructions with cWB as well (?)

# Results



# Results

