

# Dark Matter Signals at CE $\nu$ NS Experiments

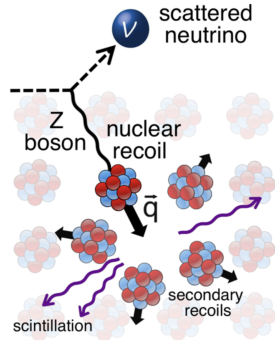
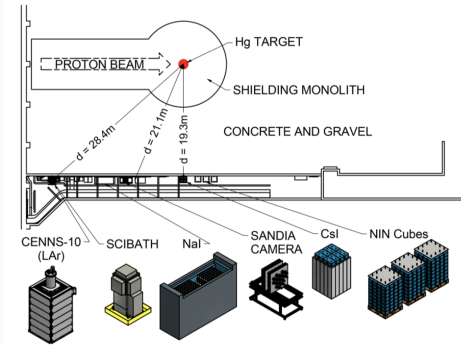
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Shu Liao

arXiv: 1906.10745

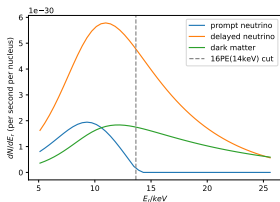
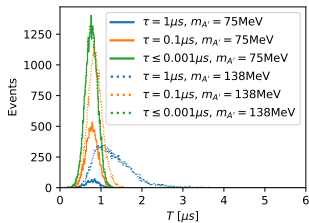
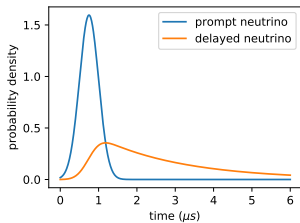
Texas A&M University

# Beam based coherent elastic neutrino-nucleus scattering (CE $\nu$ NS) experiment

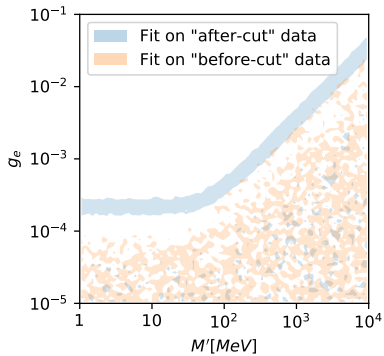
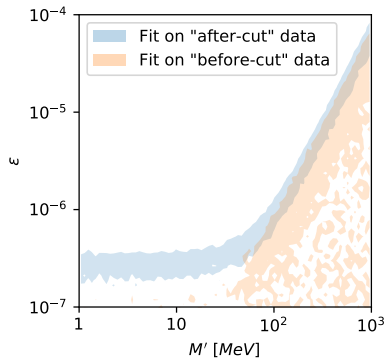


from Akimov, D., et al. "Observation of coherent elastic neutrino-nucleus scattering." *Science* 357.6356 (2017): 1123-1126.

# Timing and energy spectrum



# Dark matter signals?



## Considerations

- Uncertainties in time data (data acquisition and analysing).
- Simulations on pion flux (Geant4).
- Nucleus structure (form factors).