Searching for Sources of High Energy Neutrinos from Magnetars with IceCube

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- Magnetars are neutron stars with very strong magnetic fields on the order of 10¹³ to 10¹⁵ G.
- * Young magnetars may be able to emit high-energy (HE) neutrinos (Zhang et al. 2003).
- Giant flares of magnetars may also produce HE neutrinos (loka et al. 2005).
- We present plans to search for neutrino emission from magnetars:
 - McGill Online Magnetar Catalog along with a few newly discovered magnetars.
 - Use 10 years of well-reconstructed IceCube muon-neutrino events looking for significant clustering around magnetar directions.







