

Astrophysical neutrino search at sub-GeV energies in IceCube

The IceCube Neutrino Observatory is sensitive from 0.5 GeV to the PeV energy range for astrophysical neutrino searches. In addition, the supernova Data Acquisition System (DAQ) allows the collaboration to be sensitive to close-by core-collapse supernovae at MeV energies. There exists, however, a gap between these covered energy ranges. This poster presents ongoing efforts to cover this gap. We will discuss various strategies to reach this goal through the use of HitSpool, a specific DAQ within IceCube, and the construction of a new event selection based on machine learning and citizen science.

Primary author: SEVLE MYHR, Per Arne (UCLouvain)

Presenter: SEVLE MYHR, Per Arne (UCLouvain)