

Z409a **IceCube 's Role in Multi-messenger Astronomy**

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The IceCube detector is comprised of a cubic kilometer of instrumented ice located at the South Pole. With over 5000 optical modules buried deep in the ice, it measures the properties of muons and electro-magnetic cascades in order to study and probe a variety of physics phenomena from neutrino oscillations, to dark matter, to searching for the origin of astrophysical neutrinos. As IceCube continues to mature, many flagship analyses are moving online to become triggers for observatories around the globe. This presentation will highlight IceCube 's role in multi-messenger astronomy and layout the latest analyses to move into a realtime framework. We discuss how the high energy cosmic ray sources can be identified by the multi-messenger approach triggered by the IceCube's neutrino signals.