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The Search for High Energy Neutrino Emission from X-ray Bright Seyfert Galaxies with IceCube

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IceCube recently observed neutrino emission from the nearby active Seyfert galaxy NGC 1068 in the TeV energy range. This finding suggests that active galactic nuclei (AGN) could be a source type contributing to the diffuse high-energy astrophysical neutrino flux. The dense environments near the supermassive black holes and the acceleration of cosmic rays in the coronae offer suitable conditions for producing high-energy neutrinos. Such environments can be examined by disk-corona models. In this search, we use disk-corona models to predict the neutrino emission flux from the Seyfert galaxies based on their observed keV X-rays luminosity. In this contribution, we report the results of searches for neutrino emission from X-ray bright Seyfert galaxies using 10 years of IceCube data.

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