Poster session 2 – Tuesday 5 July

P2.010 H.E.S.S. searches for TeV gamma-ray emission associated with high-energy neutrinos

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The observation of an astrophysical flux of high-energy neutrinos by the IceCube collaboration opened the path to multi-messenger studies searching for the origin of high-energy cosmic rays since the detected neutrinos possibly originate in hadronic interactions near cosmic-ray accelerators. Although the neutrino sky map shows no indication of localized sources so far, the angular resolution of individual track-like events is sufficiently small to search for associated gamma-ray emission with current and future Imaging Atmospheric Cherenkov Telescopes like H.E.S.S. and CTA. In this contribution we will present the H.E.S.S. program to follow up on high-energy neutrino events. We will show new results from searches for high-energy gamma-ray emission in spatial coincidence with neutrino events detected by the IceCube and ANTARES neutrino telescopes. In addition we'll discuss recent extensions towards a fully integrated real-time alert system between neutrino telescopes and the H.E.S.S. gamma-ray observatory and provide an outlook towards multi-messenger studies with CTA.