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(G*) (POS-29) Triggering on Atmospheric Muons in STRAW

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The Pacific-Ocean Neutrino Explorer is a proposed multi-cubic kilometre neutrino telescope to be located off the coast of British Columbia, Canada. Two pathfinder missions, STRAW and STRAW-B, have been deployed to the Cascadian Basin site, which uses existing infrastructure maintained by Ocean Networks Canada (ONC). These missions were deployed in order to characterise the site. The first mission, STRings for Absorption Length in Water (STRAW) was deployed specifically to investigate the absorption and scattering length, and qualify the site. This original architecture was not designed to look for atmospheric muons, however their detection could be possible. My research focuses on configuring STRAW to trigger on atmospheric muons. This can serve as an experimental check on the muon rate 2.6 km underwater. In addition, it could potentially lay the groundwork for a full scale neutrino trigger in the future P-ONE detector.

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