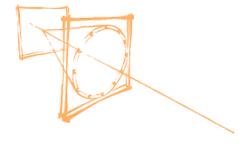
7th International Workshop on Ring Imaging Cherenkov detectors (RICH 2010)



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Large area photodetectors for Astroparticle Physics Cherenkov arrays: PMTs vs HPDs

mardi 4 mai 2010 10:15 (1 minute)

We review large sensitive area photodetectors developed for Cherenkov neutrino arrays like neutrino telescopes - classical photomultipliers (PMTs) and hybrid phototubes (HPDs). We present results of studies of recently developed large sensitive area hemispherical PMTs including PMTs with high quantum efficiency photocathodes. We also present results of studies of new very fast scintillators like ZnO:Ga for use in large area HPDs. First pilot samples of HPD with ZnO:Ga scintillator has been recently developed and we present preliminary results of studies of their parameters. It's shown that the pilot samples have <1ns time resolution (fwhm) and a few ns pulse width (fwhm). Large sensitive area hybrid phototubes with such scintillators are very promissing for new giant neutrino projects.

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plenary

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Classification de Session: Poster Session 1 (Summary)

Classification de thématique: Photon detection for Cherenkov counters