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Simulation of Fano Factor in HAWC-30 Array

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Abstract content

HAWC, High Altitude Water Cherenkov, is gamma-ray observatory which is able to survey sky in energy from 100 GeV to 100 TeV and will be localized at Sierra La Negra volcano at 4100 m a.s.l. near to Puebla city. In 2011 it has been installed verification VAMOS array, and in 2012 it will be installed HAWC first step which includes 30 WCDs. In this talk it is presented the result of simulations where the goal is, in a first step, the corroboration of Fano factor calculated with VAMOS 7 tank data and our simulations. It is simulated the rate and Fano actor for another HAWC construction steps as HAWC-30 which are going to be discussed. It is important to get controlled the detector Fano factor because of there are repercussions, for instance, in the signal to noise ratio.

Summary

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