

## Neutrino and cosmic ray signals from the Moon

*Tuesday 21 February 2012 19:50 (25 minutes)*

We evaluate the ultra high energy neutrino event rate from the lunar observation using the analytic expression of the effective aperture by Gayley et al.. We modify this formalism for strong attenuation and evaluate the background from cosmic ray interaction in the lunar regolith. We also make modifications to the effective aperture for the non-standard model neutrino interaction and calculate the event rate with the enhanced non-SM neutrino-nucleon cross sections.

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