



Precise determination of muon and EM shower contents from shower universality property

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We present two new aspects of Extensive Air Shower (EAS) development universality allowing to make accurate estimation of muon and electromagnetic (EM) shower contents in two independent ways. In the first case, to get muon (or EM) signal in water Cherenkov detectors it is enough to know the vertical depth of shower maximum and the total signal. In the second case, the EM signal can be calculated from the primary particle energy and the zenith angle. In both cases the parameterizations of muon and EM signals are almost independent on primary particle nature, energy and zenith angle.

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