

Study of environmental thermal neutron fluxes: from EAS to Geophysics

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The electron-neutron detectors (en-detectors) were developed at INR RAS in the framework of the PRISMA project to study Extensive Air Shower (EAS) hadronic component through thermalized neutrons. By continuous monitoring of neutron background with the en-detectors we have found interesting variations in the environmental thermal neutron flux. Environmental neutrons are produced by two sources: cosmic rays and natural radioactivity. They are in equilibrium with media and are therefore sensitive to many geophysical or Sun-Earth phenomena in accordance with the source of production. Some results are presented and discussed.

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