

Method of flicker-noise spectroscopy of cosmic rays muon flux variations caused by non-stationary processes

Wednesday, 12 October 2016 15:30 (30)

The paper presents a new method of identifying signals in a statistically noisy non-stationary time series. In difference from Fourier and wavelet analysis in the processing of data does not make any assumptions about the structure of the signal-analyzer. The proposed method of flicker-noise spectroscopy is demonstrated on simulated and real time series related to monitoring solar activity registration flow of solar and cosmic radiation using ground level muon hodoscope. The method is applicable for analysis of a wide range of different helio - and geophysical processes. This work was supported by RFBR grant 16-05-00997.

Primary author(s) : Dr. BOROG, Vladimir (National Research Nuclear University MEPhI (Moscow Engineering Physics Institute))

Co-author(s) : Dr. DMITRIEVA, Anna (National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)); Ms. KOVYLAEVA, Anna (National Research Nuclear University MEPhI)

Presenter(s) : Dr. BOROG, Vladimir (National Research Nuclear University MEPhI (Moscow Engineering Physics Institute))

Session Classification : Poster session - III

Track Classification : Cosmic rays