# FRACTAL ANALYSIS OF THE ENVIRONMENTAL RADIOACTIVITY:A REVIEW

Vasile CUCULEANU[1,2], Mărgărit PAVELESCU[2]

**Abstract** *This paper provides a review of literature related to the assessment of the fractal characteristics of the time series of environmental radioactivity using rescaled range(R/S) analysis, as well as the box counting method. The R/S analysis allows to estimate the Hurst exponent and the fractal dimension of a time series of data that is studied. The Hurst exponent can classify a given time series in terms of whether it is a random, a persistent, or an anti-persistent process. The analysed physical data are the natural and artificial radioactivity concentrations from the environmental components (atmosphere, soil, water).*

[1]Faculty of Physics, University of Bucharest, 077125 Bucharest- Magurele, P.O. Box MG-11, Romania.
[2]Academy of Romanian Scientists, 54 Splaiul Independentei, RO-050094, Bucharest, Romania.