



## **Lateral variations of $V_p / V_s$ ratios for Romanian upper crust**

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Seismic wave propagation reveals valuable information about the earth's structure. Romania, located in the South-Eastern part of Europe, is characterized by a significant seismic activity, here being recorded destructive intermediate depth seismic events as well as moderate crustal earthquakes. Besides the natural seismicity, very well defined, numerous artificial events generated in distinct areas were highlighted. These events are recorded by the stations of National Seismic Network and source parameters computed within National Data Center. The present study aims to determine the lateral variation of the  $V_p / V_s$  ratio in order to map the crustal structure variety and also to compute the Poisson ratio to provide correlation with geophysical properties of the different structures. These kinds of maps can be very useful to emphasize the potential regions exposed to a higher risk. For this purpose we selected crustal events occurred between 2006 and 2015, with focal depths up to 30 km, recorded by seismic stations situated up to 50 km epicentral distance. Various statistical techniques were applied to test the stability degree of the obtained results. Structural features reveal generally, good agreement with geophysical models highlighted by previous studies.