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**SYSTEMS ANALYSIS IN SOLUTION OF GEOLOGICAL TASKS:
CYCLOSTRATIGRAPHY METHOD**

Classic methods of geology usually include macro and micro analysis of the rock samples. For the last ten years the multidisciplinary approach is widely applied. In the era of BIG DATA with contribution from intensive systems analysis new geological methods revealed. In this presentation the cyclostratigraphy method will be presented. This method allow to identify the geological cyclicity basing on the measures of paleomagnetic intensity. Cyclostratigraphy reflect the influence of the astronomical cycles on the sedimentation conditions that is mostly related to the variation of the solar activity and hence a climate changes. As the example we will study Messinian salinity crisis - catastrophic event that appeared about 5 Ma in the Mediterranean region. Paleomagnetic data collected in the Sicily island and adjacent areas with the application of cyclostratigraphy methods will allow the correlation of the successions and further interpretation. The aim is to show the versatility of the approach and its various applications.