

**Elaboration and application of a mathematical algorithm for quantitative evaluation of the geomorphologic changes caused by mining in marine platform areas**

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The studies of the alteration processes of physical-geologic means require more and more of work methodologies and tools of mathematical processing that allow to specify and to discern on one hand, in what quantity the activity that the Man exercises is responsible of degradation processes and, on the other hand also allow to determine what processes should be considered as characteristic of the natural dynamics of the studied ecosystems. These data contribute to make more exact, rational and scientific the administration activities and environmental management.

It is exactly the present work purpose. One methodology applied to qualitative and quantitative the influence, on marine relief natural geomorphology, of the extractive activity of natural resources located in these areas is exposed. Likewise, by means of their application, can be verified and quantified the natural dynamics in studied area.

For the quantification of the geomorphologic changes was elaborated a physical-mathematical model and developed a general mathematical algorithm (support on personal computers currently).

With the results of this new calculation method, have been obtained important results in studies the coast zones.