



Geostatistics in Modern Mining Planning

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Abstract: Since the early seventies of last century the classical approach of statistical reviews in mining has been replaced with a modern approach which relies on the meaning of "the regionalized variables". According to this approach, the construct of the variogram for ore body in active mines, or mineral deposit detected with preliminary geological research, provides the mining engineer with the necessary details and data on internal characteristics of an ore, such as "anisotropy" or "isotropy" of the property being reviewed, in different directions. On the other hand, even if the operational engineer possesses the available data on the quality of an ore at certain points, as a result of samples taken, he often needs to know the quality in blocks that have not been sampled, in order to place them in the operational plan of production, or to consider them as sterile. Using the "best linear evaluation" - Krige method, or the application of computers in mining planning system, is becoming a strong tool in the hands of the engineers. The case study of Trepca mine (Kosovo) proves the crucial role that geostatistical methods have in modern production in mines and mineral processing plants.

Keywords: *Interpolation, Krige method, planning in mines, variogram.*

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