
Evaluation of the permeability of soil structures using geostatistics

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The degree of compaction is measured for quality control in embankment work. However, few measurements have been performed in quality management regarding the frequency of the degree of 1000m³ / times. Therefore, it is difficult to say that the representative value of the entire constructed soil structure has been measured. Therefore, we created the program that can make a three-dimensional distribution model by interpolating the measurement data by kriging. For example, if the hydraulic conductivity is estimated from the correlation between the dry density and the hydraulic conductivity and is applied to this program, a distribution model of the hydraulic conductivity can be obtained. By using this hydraulic conductivity distribution model, it is possible to evaluate the hydraulic conductivity of soil structures. As a result of applying the data of the past construction test, it was confirmed that the construction was completed with the required performance.
