



## Estimation of Shear Strength Using Fractals as a Measure of Rock Fracture Roughness

By -

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Researchers at the U.S. Bureau of Mines investigated the use of close-range photogrammetry and subsequent stereo digitizing to obtain data from rock fracture roughness profiles. The photogrammetric process yielded results that were acceptable but somewhat inferior to those obtained by a mechanical profilometer. On the basis of this study, further pursuit of photogrammetry as a data collection method in mining is proposed. Fractal geometry was investigated as a means of measuring the roughness of rock fracture profiles. Four fractal algorithms were used: divider method, modified divider method, box method, and spectral method. A comparison of the methods gave ambiguous results. Brown s modified divider method provided the best means of obtaining the fractal dimension. Shear strength estimates were obtained using the parameters of the modified divider method and Myers Z2 measure. Because of differences in results when comparing the different ways of obtaining the fractal dimension, future users of fractals in studies of rock fractures are advised to cross-check their results carefully.



[READ ONLINE](#)  
[ 9.41 MB ]

### Reviews

*Extremely helpful to any or all category of individuals. It really is rally fascinating throgh studying time period. I am just quickly could possibly get a pleasure of reading a composed ebook.*

*-- Lawrence Keeling*

*This publication may be worthy of a read through, and a lot better than other. It is among the most incredible book we have read through. Your daily life period will be change when you total reading this article publication.*

*-- Garrett Baumbach*