

# **A Maximum Likelihood Estimate For Two-Variable Fractal Surface**

Balghonaim, A.S. Keller, J.M.;Dept. of Electr. Eng., King Fahd Univ. of Pet.Miner.,  
Dhahran;

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King Fahd University of Petroleum & Minerals

**<http://www.kfupm.edu.sa>**

## **Summary**

The fractal dimension estimate for two-variable fractional Brownian motion using the maximum likelihood estimate (MLE) is developed. We formulate a model to describe the two-variable fractional Brownian motion, then derive the likelihood function for that model and estimate the fractal dimension by maximizing the likelihood function. We then compare the MLE with the box-dimension estimation method

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