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**Benoit Mandelbrot\*** ([benoit.mandelbrot@pnl.gov](mailto:benoit.mandelbrot@pnl.gov)). *Multifractals and negative dimensions.*

1. Presentation of new classes of random multifractals obtained by recursive roughening. 2. A rule of thumb: All moments' convergence requires the roughening process to be subjected to strong constraints. 3. Negative values for dimension and the pseudo-Holder are directly and intuitively understood when the measure can be embedded in a larger space. The example of the two-valued canonical cascade. (Received March 08, 2006)