

Dedication

This volume is dedicated to the memory of Professor Elliott W. Montroll, who died at age 67 on 3 December 1983 shortly after this Conference concluded. Montroll, an organizer of this meeting, was one of the early researchers and supporters of fractals. He frequently encouraged younger associates to work on fractals before the field would explode. He was fascinated by the work of Paul Levy and initiated many physicists into Levy's world of probability distributions with no finite integer moments. With Barry Hughes and Michael Schlesinger he discovered that the structure function of a Levy flight on a one-dimensional lattice can be generated by Weierstrass' famous continuous but nowhere differentiable function which is a lacunary series of cosines. An extension to a spherically symmetric random walk in the continuum led to a structure function which was a lacunary series of Bessel functions, and a natural generalization of the Weierstrass function. His work with Harvey Scher showed the importance of a fractal set of event times for explaining charge transport in amorphous materials, and his work with Michael Shlesinger applied these same fractal time ideas to a reaction scheme leading to a derivation of the Williams-Watts function for dielectric relaxation. A fuller account of his remarkably rich and varied scientific life will appear in *Physics Today* and in a forthcoming volume of the *Studies in Statistical Mechanics*. Montroll's influence through his brilliant lectures, exceptionally clear review articles, and his many innovative contributions to mathematical physics will continue to grow along with the sadness of his loss.