Book Review: The Wonderful World of Stochastics: A Tribute to Elliott W. Montroll

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Edited by M. F. Shlesinger and G. H. Weiss. North-Holland, Amsterdam, 1985 (Studies in Statistical Mechanics, Vol. XII, Series editor J. L. Lebowitz.)

This wonderful book is a superb tribute to a great scientist and human being, Elliott W. Montroll.

The volume consists of an introduction outlining Montroll's life and scientific contributions written by two of his former students, Shlesinger and Weiss; a list of Montroll's publications; a collection of contributions to the Elliott W. Montroll Memorial Symposium on Mathematical Physics held on May 3-4, 1984 at the National Academy of Sciences, Washington, D.C.; and reprints of some of Montroll's most important, characteristic, and seminal papers.

All of the contributors to the symposium were students, collaborators and/or friends of Montroll. The papers are either directly stimulated by Montroll's work or by his spirit. Those in the first category are on these topics: dielectric relaxation by Bendler and Shlesinger, statistical problems in quantum electronics by Hioe, diffusion in solids by Meijer, Mayer–Montroll equations by Stell, illumination in a random medium by van Kampen, random walks in crystallography by Weiss and Kiefer, and the quantum Langevin equation by West and Lindenberg. In the latter category are the papers by Domb on the fascination of old texts, by Potts on Mathieu difference equations, and by Bricmont, Lebowitz, and Pfister on inequalities for anisotropic rotators. The papers are nicely written and scientifically interesting, as befits work dedicated to Montroll.

The most valuable part of this volume consists of Montroll's own papers and the insights one obtains from the introduction and contributions to Montroll's personality and scientific mode of thought.

This volume is a fitting tribute to Elliott, a work of love and respect for a great man. It would be a welcome addition to the bookshelves of anyone who knew Elliott, who is interested in statistical mechanics and the quantitative aspects of social phenomena, or who is interested in how scientists think and interact.

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