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Introduction

Random walk models have appeared in diverse subject areas, in biology, chemistry, economics, gambling, and physics, to mention just a few. At present the development, analysis, and application, of random walk models is a very active research area in chemical physics. From the 1930s random walk models played a central role in characterizing polymer configurations, and problems related to self-avoiding walks which arise in that context continue to engage armies of researchers. A topic of more recent origin that has also focused the efforts of many investigators is that of random walks in random media. These topics, in addition to narrower applications in chemistry, physics, and biology were the subject matter of a meeting held at the National Bureau of Standards, from June 28 to July 1, 1982. There were over 100 attendees, with both invited and contributed talks. These Proceedings reflect a spectrum of research efforts in the application of random walk methodology, and summarize recent progress in different subject areas. As such, this volume should constitute an introduction for those unfamiliar with these research topics, and stands as a record of where we are at for workers in random walks.

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