Book Review: Random Fields

Random Fields, Vols. I and II. 1111 pages. Edited by J. Fritz, J. L. Lebowitz, and D. Szász. Published in the series Colloquia Mathematica Societatics János Bolyai No. 27. North-Holland, Amsterdam, 1981.

These two volumes contain 63 papers presented at a colloquium organized by the János Bolyai Society in Esztergom, Hungary during June 24–30, 1979. One hundred and twenty-seven scientists from 18 different countries participated in the colloquium.

The theme of the colloquium was "Random Fields," as is the title of the two volumes containing the papers. This of course is meant in the broad sense of studies involving stochastic systems with spatial interactions. Papers presented deal with noncommutative probability and applications to quantum mechanics, Schrödinger equations with random potential, equilibrium statistical mechanics, scaling limits for quantum fields, etc.

Many of the papers in these volumes are full-length research papers and all papers were refereed, as the editors point out in the preface. It is very unusual to find in a single publication such a concentration of excellent contributions to mathematical statistical physics. It is a very valuable, although expensive, addition to the research literature in a very attractive and promising field.

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