
Let us make no bones about it: despite its title, this book contains the material for what should be the "new" course in measure theory. Classical functional analysts (but not functional classical analysts) will be reluctant to include analytic sets, capacities, and optional times in their first-year graduate courses, but it must be admitted that of the two main customers of measure theory, namely probability and harmonic analysis, the first one has at the present time the first priority.


Statistical mechanics is one of the last bastions of sound physics, using good mathematics and proving rigorous theorems (physicists make a curious distinction between "proofs" and "rigorous proofs"; we wonder why), and resisting the folie of mystical trance into which other branches of physics have, alas, fallen. This booklet goes all the way from probability to spectral theory to zeta functions and keeps the colors flying high.


Some subjects can be roughly associated with geographic locations: graph theory is a Canadian subject, singular integrals is an Argentine subject, class-field theory an Austrian subject, algebraic topology an American subject, algebraic geometry an Italian subject, special functions a Wisconsin subject, point-set topology a Southern subject, probability a Russian subject, etc. Well, non-Archimedean functional analysis is a Dutch subject, as the present well-written and entertaining account amply demonstrates.


After perusing this handsome volume for a while, we wondered how philosophical logic differs from ordinary mathematical logic. We concluded that there is very little difference as far as content goes, but a great one in presentation. Philosophical logicians, as against ordinary mathematical logicians, feel an actual need to make themselves understood, and even—mirabile dictu!—to write with a certain elegance and style (a mathematical logician might maliciously retort that philosophical logic is not as deep, but the point is highly debatable). At any rate, a book like this one is highly preferable to any of the soi-disant expositions pawned off on the public under the aegis of a letter of the Greek alphabet.