

W. Thirring A Course
in Mathematical
Physics
Vol. 2
Classical Field Theory

Translated from the German
by Evans M. Harrell

A recent major new development in theoretical physics was the emergence of gauge fields, a concept which ties together differential geometry and classical field theory. The discussion in Thirring's book is a language understandable to mathematicians and physicists. After a review of tensor analysis (studied more extensively in volume I of the work, *Classical Dynamical Systems*), the book gives a modern treatment of many of the classical problems of electrodynamics. This leads to the subject of gravitation which is developed at length in the last part of the book, including the most important theorems of the latest research on the structure of space-time and black-hole physics.

The second edition of this successful and very useful text contains a new section on gauge theories and gravitation, in addition to many changes in the details of the presentation, including a number of new figures.

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