<< GEOMETRIC PHASES IN PHYSICS>>

13 ISBN 9789971506216

10 ISBN 9971506211

1988-11

World Scientific Publishing Company

Shapere, Alfred (EDT) / Wilczek, Frank (EDT)

509

PDF

http://www.tushu007.com

During the last few years, considerable interest has been focused on the phase that waves accumulate when the equations governing the waves vary slowly. The recent flurry of activity was set off by a paper by Michael Berry, where it was found that the adiabatic evolution of energy eigenfunctions in quantum mechanics contains a phase of geometric origin (now known as 'Berry's phase') in addition to the usual dynamical phase derived from Schrodinger's equation. This observation, though basically elementary, seems to be quite profound. Phases with similar mathematical origins have been identified and found to be important in a startling variety of physical contexts, ranging from nuclear magnetic resonance and low-Reynolds number hydrodynamics to quantum field theory. This volume is a collection of original papers and reprints, with commentary, on the subject.

PDF

:http://www.tushu007.com