How can the interior of the Sun, white dwarfs, Ap and δ Scuti stars be studied by stellar seismology? What can Doppler imaging tell us about high-degree pulsations? How are OP and OPAL opacity calculations resolving the long-standing discrepancies between 'pulsational' and 'evolutionary' masses? What impact are CCD and infrared observations having on extending the Cepheid and RR Lyrae distance scale? And how are other classes of pulsators providing independent checks of the distance scale? These and many other critical questions are answered in this timely review of the dramatic advances made in pulsating star research in the last decade.

This survey collects together more than thirty comprehensive reviews and over one hundred summaries of research papers from the IAU Colloquium 139, held in Victoria, British Columbia. Together these cover all aspects of recent developments in the field of variable star research and preview some of the exciting advances anticipated for the next decade. This volume provides an essential review for graduate students and researchers.

CAMBRIDGE UNIVERSITY PRESS

