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NUTATION AND THE EARTH'S ROTATION

Edited by E. P. FEDOROV, M. L. SMITH and P. L. BENDER







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IAU Symposium No. 78 on 'Nutation and the Earth's Rotation' brought together astronomers and geophysicists working on the complex angular motions of the Earth in space. It has been known for a century that the non-rigidity of the Earth affects polar motion. Only in the last two decades, however, have theories become available for the effects on nutations of the elasticity of the fluid core. Many classical observations of the Earth's nutations are now available, and it is expected that improved measurements will be made in the 1980s by means of long baseline radio interferometry and laser distance measurements to satellites. This volume contains most of the papers presented at the Symposium, including both observational results and contributions to their geophysical interpretation. Review papers by Wilkins, Fedorov, Yatskiv, Vicente and Melchior provide a sound overview of the field. The meeting also recommended a set of coefficients in Woolard's series for the nutation in order to provide a more accurate representation of the forced nutation of the deformable Earth with a liquid core.

Audience

The book will be important to astronomers interested in measurements of the rotation of the Earth, and geophysicists who want to study the dynamical properties of the Earth and the forces causing changes in its rotation.

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