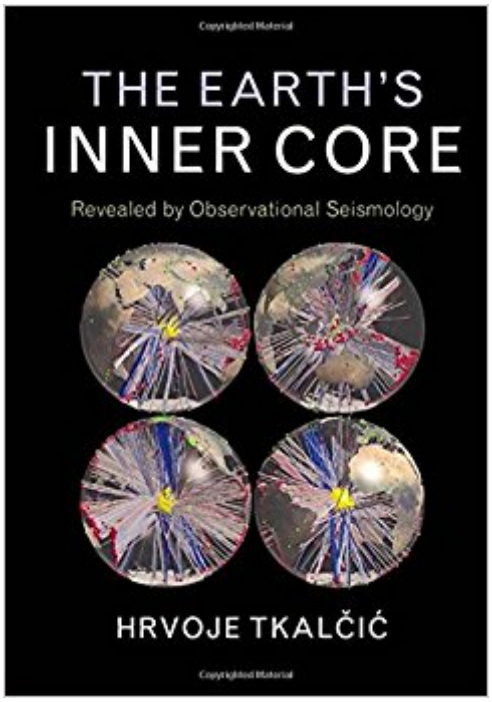
The Earth's Inner Core: Revealed By Observational Seismology



Synopsis

The inner core is a planet within a planet: a hot sphere with a mass of one hundred quintillion tons of iron and nickel that lies more than 5000 kilometres beneath our feet. It plays a crucial role in driving outer core fluid motion and the geodynamo, which generates the Earth's magnetic field. This book is the first to provide a comprehensive review of past and contemporary research on the Earth's inner core from a seismological perspective. Chapters cover the collection, processing and interpretation of seismological data, as well as our current knowledge of the structure, anisotropy, attenuation, rotational dynamics, and boundary of the inner core. Reviewing the latest research and suggesting new seismological techniques and future avenues, it is an essential resource for both seismologists and non-seismologists interested in this fascinating field of research. It will also form a useful resource for courses in seismology and deep Earth processes.

Book Information

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Customer Reviews

The first comprehensive review of past and contemporary research on the Earth's inner core from a seismological perspective. Providing a detailed account of how seismology is used in inner core research, and suggesting avenues for further study, it is an essential resource for researchers and students studying seismology and deep Earth processes.

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using observational seismology. His recent projects focus on developing new approaches in lithospheric and mantle imaging and studying seismic sources. Dr TkalÃ„Â•iÃ„â ¡ is a manager of the Warramunga Seismic and Infrasound Array in Northern Territory, Australia, and he also participates in improving global coverage of seismic data by deployment in remote regions.

The Earth’s Inner Core: Revealed by Observational Seismology An Introduction to Seismology, Earthquakes and Earth Structure An Introduction to Seismology, Earthquakes and Earth Structure 1st edition by Stein, Seth, Wysession, Michael (2002) Paperback Seismology: Our Violent Earth (History of Science) Classic Sketchbook: Cats: Secrets of Observational Drawing Drawing in the Digital Age: An Observational Method for Artists and Animators Observational Gait Analysis To Measure the Sky: An Introduction to Observational Astronomy Observational Astronomy An Introduction to Observational Astrophysics (Undergraduate Lecture Notes in Physics) Statistics, Data Mining, and Machine Learning in Astronomy: A Practical Python Guide for the Analysis of Survey Data (Princeton Series in Modern Observational Astronomy) DK Revealed: Ancient Egypt (DK Revealed) The Tao of Daily Life: The Mysteries of the Orient Revealed The Joys of Inner Harmony Found The Path to Enlightenment Illuminated Computational Seismology: A Practical Introduction Basic Earthquake Engineering: From Seismology to Analysis and Design Earthquake Engineering: From Engineering Seismology to Performance-Based Engineering Exploration Seismology Elements of 3-D Seismology An Introduction to the Theory of Seismology Applied Seismology: A Comprehensive Guide to Seismic Theory and Application