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## Rock Mechanics Based on an Anisotropic Jointed Rock Model (AJRM)

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896 pages, 42 tables,  
900 figures

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\*Prices incl. taxes and shipping costs.

This book focuses on the fundamentals of rock mechanics as a basis for the safe and economical design and construction of tunnels, dam foundations and slopes in jointed and anisotropic rock. It is divided into four main parts:

- Fundamentals and models
- Analysis and design methods
- Exploration, testing and monitoring
- Applications and case histories.

The rock mechanical models presented account for the influence of discontinuities on the stress-strain behavior and the permeability of jointed rock masses.

This book is for:

- Civil- and Mining-Engineers
- Geologists
- Students in the related fields

### About the Author:

Prof. Wittke is Emeritus of the Technical University of Aachen, Germany, and General Manager of the engineering company WBI Prof. Dr.-Ing. W. Wittke Beratende Ingenieure für Grundbau und Felsbau GmbH, which he founded in 1980. From 1979 to 1983, he was President of the International Society for Rock Mechanics (ISRM), and from 1990 to 2002 President of the German Society for Geotechnical Engineering (DGGT). During his professional life, he has been working as a designer and expert for numerous tunnels and caverns. Moreover, he has been dealing with dam foundations and slope stability. Along with these activities, he applied the rock mechanical models and the corresponding numerical analysis models, which he developed together with his co-workers.

With the aid of back-analysis of the stresses and displacements measured during the construction and operation of the different structures, he continuously revised and improved these models. His ambition is to transfer his knowledge, especially to the employees of WBI and to his children, working together with him. The results of his activities and works are published in numerous papers and publications.

### The Publishing House:

Since its foundation 1851 in Berlin, Ernst & Sohn belongs to the prominent publishing houses in the German-speaking countries particularly for civil and structural engineering. The book program with the emphasis reinforced concrete and steel structures, structural design and calculation, building physics, geotechnics and standardization supplies indispensable specialized knowledge for the learning and training of civil engineers in planning and execution. The most important book in the publishing house history - the "Beton-Kalender" (Concrete Calendar) - was published in 2006 in the hundredth edition. Ernst & Sohn is a Wiley-Blackwell company.

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