FOURTH EDITION

THE PHYSICS OF GLACIERS

K.M. CUFFEY and W.S.B. PATERSON

Now in its fourth edition, this classic text covers the physical principles underlying the behavior of glaciers—terrestrial ice bodies originating as accumulations of snow—including mountain glaciers, small ice caps, ice sheets, and ice shelves. New and expanded chapters discuss climate change topics, including: how ice core studies obtain information about past climate and atmospheric composition; the reaction of glaciers and ice sheets to global warming; quaternary climate history and the ice ages; and the challenge of projecting future sea-level rise. The book explores many additional topics of interest to geologists and geophysicists who study tectonics and geomorphology.

Key Features

- Completely updated and revised edition containing 30 percent new material
- Accessible to students but also an essential guide for researchers
- Authored by preeminent glaciologists
- Richly illustrated to enhance the understanding of key concepts

Authors

Dr. Kurt M. Cuffey has investigated glaciers in Greenland, Antarctica, and the Rocky Mountains. His introduction to glacier studies was with the Juneau Icefield Research Program in 1988. He subsequently studied and researched at the Pennsylvania State University and the University of Washington. Since 1999, he has been a professor at the University of California-Berkeley, where he currently chairs the Department of Geography and lives near a major tectonic fault. He is a fellow of the American Geophysical Union and pursues broad-ranging interests in ice, climate, and geomorphology.

Dr. W.S.B. Paterson began studying glaciers with the British North Greenland Expedition in 1953. He emigrated to Canada in 1957 and between 1959 and 1980 studied glaciers in the Canadian Arctic and the Rocky Mountains, mainly under the auspices of the Canadian Government's Polar Continental Shelf Project. Since 1980 he has done consulting work and has also been a visiting scientist with the Geophysics Department at the University of Copenhagen and with the Australian Antarctic Division. He has also given a comprehensive lecture course at the Institute of Glaciology and Geocryology in Lanzhou, China. He is now retired (more or less) and lives in British Columbia.

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Hodgson Glacier, Yukon, Canada
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