

1. Record Nr.	UNINA9910483161403321
Autore	Fowler Andrew <1953->
Titolo	Glaciers and Ice Sheets in the Climate System : The Karthaus Summer School Lecture Notes // edited by Andrew Fowler, Felix Ng
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-42584-3
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XXVII, 530 p. 283 illus., 214 illus. in color.)
Collana	Springer Textbooks in Earth Sciences, Geography and Environment, , 2510-1315
Disciplina	551.312
Soggetti	Geology Climatology Environment Physical geography Climate Sciences Environmental Sciences Physical Geography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Flow of ice -- Thermal structure -- Basal processes -- Tidewater glaciers -- Ice shelves D ocean interaction -- Polar meteorology -- Mass balance -- Numerical methods -- Inverse modeling -- Analytic ice sheet models and climate change -- Firn -- Ice cores -- Remote sensing -- Geophysics -- Geodynamics -- Paleo-ice sheets -- Geomorphology -- Glacier fluctuations -- Tropical glaciers -- Historical glaciology.
Sommario/riassunto	Our realisation of how profoundly glaciers and ice sheets respond to climate change and impact sea level and the environment has propelled their study to the forefront of Earth system science. Aspects of this multidisciplinary endeavour now constitute major areas of research. This book is named after the international summer school held annually in the beautiful alpine village of Karthaus, Northern Italy, and consists of twenty chapters based on lectures from the school. They cover theory, methods, and observations, and introduce readers to

essential glaciological topics such as ice-flow dynamics, polar meteorology, mass balance, ice-core analysis, paleoclimatology, remote sensing and geophysical methods, glacial isostatic adjustment, modern and past glacial fluctuations, and ice sheet reconstruction. The chapters were written by thirty-four contributing authors who are leading international authorities in their fields. The book can be used as a graduate-level textbook for a university course, and as a valuable reference guide for practising glaciologists and climate scientists.
