

1. Record Nr.	UNINA9910346663203321
Autore	Dolan Margaret
Titolo	Marine Geomorphometry
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019
ISBN	3-03897-955-4
Descrizione fisica	1 electronic resource (400 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Geomorphometry is the science of quantitative terrain characterization and analysis, and has traditionally focused on the investigation of terrestrial and planetary landscapes. However, applications of marine geomorphometry have now moved beyond the simple adoption of techniques developed for terrestrial studies, driven by the rise in the acquisition of high-resolution seafloor data and by the availability of user-friendly spatial analytical tools. Considering that the seafloor represents 71% of the surface of our planet, this is an important step towards understanding the Earth in its entirety. This volume is the first one dedicated to marine applications of geomorphometry. It showcases studies addressing the five steps of geomorphometry: sampling a surface (e.g., the seafloor), generating a Digital Terrain Model (DTM) from samples, preprocessing the DTM for subsequent analyses (e.g., correcting for errors and artifacts), deriving terrain attributes and/or extracting terrain features from the DTM, and using and explaining those terrain attributes and features in a given context. Throughout these studies, authors address a range of challenges and issues associated with applying geomorphometric techniques to the complex marine environment, including issues related to spatial scale, data quality, and linking seafloor topography with physical, geological, biological, and ecological processes. As marine geomorphometry becomes increasingly recognized as a sub-discipline of geomorphometry, this volume brings together a collection of research</p>

articles that reflect the types of studies that are helping to chart the course for the future of marine geomorphometry.

---