

Advances in Volcanology

Coming soon





Volcanic debris avalanches - from collapse to hazard

Matteo Roverato, Anja Dufresne, Jonathan N. Procter (editors)

This year marks the 40th anniversary of the Mount St. Helens eruption and lateral collapse. In acknowledgement to the vast research dedicated to understanding volcano lateral collapse and volcanic debris avalanche dynamics, we have collated in this book the topic's current state of the art. Twelve chapters offer reviews of and new insights into the reseach from the past four decades, and provide outlooks and recommendations for the future.

Preface by Lucia Capra

Introduction by Matteo Roverato and Anja Dufresne

With contributions from

(in order of appearance):

Lee Siebert Matteo Roverato Benjamin Bernard Shinji Takarada Daniel Andrade Anja Dufresne Frederico Di Traglia Jonathan N. Procter **Engielle Paguican** Gioachino Roberti Nicholas J. Roberts Catherine Lit Hidetsugu Yoshida Anke V. Zernack Karine Bernard Jean-Claude Thouret Sebastian F.L. Watt Jens Karstens **Christian Berndt** Shane J. Cronin

Topics covered in the chapters:

Historical Perspective,
Terminology,
Distribution and Geometric Parameters,
Volcano Stability,
Climatic Influences,
Transport and Emplacement,
Sedimentology,
Submarine Debris Avalanches,
Volcaniclastic Ringplains,
Cumputer Simulation,
Cyclicity of Destruction and Growth

Reviews by (in order of appearance):

Vince Neall

José-Luis Macias **Alexander Belousov** Mathieu Kervyn **Alexander Strom** Graziella Devoli Lucia Capra Marc-André Brideau Lisa Borgatti Constanza Morino Shinji Takarada Samuel McColl Anja Dufresne Lizeth Caballero Sergio S. Salinas Rui Ouartau **Neil Mitchell Thomas Pierson** Lee Siebert **Karoly Nemeth**