

1. Record Nr.	UNINA9910337652503321
Titolo	Lectures on Visco-Plastic Fluid Mechanics // edited by Guillaume Ovarlez, Sarah Hormozi
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-319-89438-2
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (265 pages)
Collana	CISM International Centre for Mechanical Sciences, Courses and Lectures, , 0254-1971 ; ; 583
Disciplina	532.0533
Soggetti	Fluid mechanics Fluids Mathematical physics Engineering Fluid Dynamics Fluid- and Aerodynamics Mathematical Applications in the Physical Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Background lectures on ideal visco-plastic fluid flows -- Viscoplastic asymptotics and other analytical methods -- Computational methods for viscoplastic fluid flows -- Rheometry of visco-plastic fluids -- Rheology of visco-plastic suspensions -- Industrial applications of yield stress fluids.
Sommario/riassunto	The book is designed for advanced graduate students as well as postdoctoral researchers across several disciplines (e.g., mathematics, physics and engineering), as it provides them with tools and techniques that are essential in performing research on the flow problems of visco-plastic fluids. The following topics are treated: analysis of classical visco-plastic fluid models mathematical modeling of flows of visco-plastic fluids computing flows of visco-plastic fluids rheology of visco-plastic fluids and visco-plastic suspensions application of visco-plastic fluids in engineering sciences complex flows of visco-plastic fluids.