Record Nr. UNINA9910383843103321 Droplet Interactions and Spray Processes / / edited by Grazia Lamanna, Titolo Simona Tonini, Gianpietro Elvio Cossali, Bernhard Weigand Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-33338-8 Edizione [1st ed. 2020.] 1 online resource (XIII, 311 p. 152 illus., 107 illus. in color.) Descrizione fisica Fluid Mechanics and Its Applications, , 0926-5112; ; 121 Collana Disciplina 530.427 Soggetti Engineering design Energy **Physics Engineering Design** Energy, general Mathematical Methods in Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Droplet-Gas Interactions -- Droplet-Liquid Interactions Nota di contenuto -- Spray Processes. This book provides a selection of contributions to the DIPSI workshop Sommario/riassunto 2019 (Droplet Impact Phenomena & Spray Investigations) as well as recent progress of the Int. Research Training Group "DROPIT". The DIPSI workshop, which is now at its thirteenth edition, represents an important opportunity to share recent knowledge on droplets and sprays in a variety of research fields and industrial applications. The

2019 (Droplet Impact Phenomena & Spray Investigations) as well as recent progress of the Int. Research Training Group "DROPIT". The DIPSI workshop, which is now at its thirteenth edition, represents an important opportunity to share recent knowledge on droplets and sprays in a variety of research fields and industrial applications. The research training group "DROPIT" is focused on droplet interaction technologies where microscopic effects influence strongly macroscopic behavior. This requires the inclusion of interface kinetics and/or a detailed analysis of surface microstructures. Normally, complicated technical processes cover the underlying basic mechanisms, and therefore, progress in the overall process modelling can hardly be gained. Therefore, DROPIT focuses on the underlying basic processes. This is done by investigating different spatial and/or temporal scales of the problems and by linking them through a multi-scale approach. In

addition, multi-physics are required to understand e.g. problems for droplet-wall interactions, where porous structures are involved.