

1. Record Nr.	UNINA9910483731003321
Titolo	Fundamentals of High Lift for Future Civil Aircraft : Contributions to the Final Symposium of the Collaborative Research Center 880, December 17-18, 2019, Braunschweig, Germany // edited by Rolf Radespiel, Richard Semaan
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-52429-9
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XII, 648 p. 421 illus., 301 illus. in color.)
Collana	Notes on Numerical Fluid Mechanics and Multidisciplinary Design, , 1860-0824 ; ; 145
Disciplina	629.13233
Soggetti	Fluid mechanics Aerospace engineering Astronautics Dynamical systems Engineering Fluid Dynamics Aerospace Technology and Astronautics Dynamical Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Unconventional Applications and New Approaches for Flow Control -- A Brief Overview on Past Research on Coanda Assisted STOL Transport Aircraft -- Actuation system for Effective Flow Control of an Internally Blown Coanda flap -- Friction Drag Reduction by Transversal Spanwise Traveling Waves of Ribbed Surface -- Manipulation of Leading-Edge Vortex Flow -- Semi-Analytical Approach to the Determination of Free-Edge Stress Fields in Cylindrically Curved Composite Laminated Shells -- Air Curtain Flow Control for Aerodynamic Noise Reduction -- Multibody Modelling of an UHBR Engine and its Influence on the Dynamics of an Aircraft Wing.
Sommario/riassunto	This book reports on the latest numerical and experimental findings in the field of high-lift technologies. It covers interdisciplinary research subjects relating to scientific computing, aerodynamics, aeroacoustics,

material sciences, aircraft structures, and flight mechanics. The respective chapters are based on papers presented at the Final Symposium of the Collaborative Research Center (CRC) 880, which was held on December 17-18, 2019 in Braunschweig, Germany. The conference and the research presented here were partly supported by the CRC 880 on “Fundamentals of High Lift for Future Civil Aircraft,” funded by the DFG (German Research Foundation). The papers offer timely insights into high-lift technologies for short take-off and landing aircraft, with a special focus on aeroacoustics, efficient high-lift, flight dynamics, and aircraft design. .
