1. Record Nr. UNINA9910557670203321 Autore Shadloo Mostafa Safdari Titolo Aero/Hydrodynamics and Symmetry Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Pubbl/distr/stampa Institute, 2020 Descrizione fisica 1 electronic resource (216 p.) Soggetti History of engineering & technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia This book presents collective works published in the recent Special Sommario/riassunto Issue (SI) entitled "Aero/Hydrodynamics and Symmetry". These works address the existence of symmetry and its breakdown in aero-/hydrodynamics and their related applications. The presented problems are complex nonlinear, non-Newtonian fluid flow problems that are (in some cases) coupled with heat transfer, phase change, nanofluidic, and magnetohydrodynamics phenomena. The applications vary and range from polymer chain transfer in micro-channel to the evaluation of vertical axis wind turbines, as well as autonomous underwater hovering vehicles. Recent advances in numerical, theoretical, and experimental methodologies, as well as finding new physics, new methodological developments, and their limitations are presented within the scope of the current book. Among others, in the presented works, special attention is paid to validation and improving the accuracy of the presented methodologies. This book brings together a collection of

inter-/multi-disciplinary works applied to many engineering

applications in a coherent manner.