Record Nr. UNINA9911031566003321 Autore Shakouchi Toshihiko Titolo Jets, Wakes and Separated Flows: Fundamentals and Some Topics // by Toshihiko Shakouchi Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9694-39-6 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (360 pages) Collana **Engineering Series** Disciplina 620.1064 Soggetti Fluid mechanics Soft condensed matter Thermodynamics Heat engineering Heat - Transmission Mass transfer Materials **Fluidics Engineering Fluid Dynamics Fluids** Engineering Thermodynamics, Heat and Mass Transfer Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Fluid Mechanics of Jets, Wakes and Separated Flows --Nota di contenuto Jet Flows -- Wakes and Separated Flows. Sommario/riassunto This book mainly explains basics of theoretical treatment of jet flow phenomena, which no other books have offered so far. Various research themes relating to Jet flow phenomena such as the flow characteristics of two- and three-dimensional submerged free jets, effects of nozzle shape on flow characteristics of free jet, wall jets

flowing along walls, and attached jets and impinging jets flowing by adhering to or impinging with walls are described with theoretical and experimental results. And also, the impinging jet, the heat transfer, and cooling properties of the impingement plate are also well addressed. The fundamentals of compressible and supersonic free jets and some

of their applications, such as the spreading and vector control, are also discussed. In addition, for wake and separated flows, for example, the Karman vortex street is explained in terms of its phenomena, adverse effects, and uses, and some practical matters are also discussed. This book can give many helps for undergraduate- and graduate-level students, researchers, and engineers especially studying or researching fluid- and thermo-dynamics and any related engineering.