Record Nr. UNINA9910337625203321 Autore Solari Giovanni Titolo Wind Science and Engineering: Origins, Developments, Fundamentals and Advancements / / by Giovanni Solari Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-18815-9 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (949 pages) Collana Springer Tracts in Civil Engineering, , 2366-259X Disciplina 551.5 551.518 Soggetti Mechanics Mechanics, Applied Fluids Buildings—Design and construction Building Construction Engineering, Architectural Renewable energy resources Meteorology Atmospheric sciences Solid Mechanics Fluid- and Aerodynamics **Building Construction and Design** Renewable and Green Energy **Atmospheric Sciences** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto From the dawn of history to the Renaissance -- From the Renaissance to the end of the 19th century -- From the late 19th century to the

mid-20th century -- From the mid-20th century to the 3rd millennium.

This book provides an essential overview of wind science and engineering, taking readers on a journey through the origins,

Sommario/riassunto

developments, fundamentals, recent advancements and latest trends in this broad field. Along the way, it addresses a diverse range of topics, including: atmospheric physics; meteorology; micrometeorology; climatology; the aerodynamics of buildings, aircraft, sailing boats, road vehicles and trains; wind energy; atmospheric pollution; soil erosion; snow drift, windbreaks and crops; bioclimatic city-planning and architecture; wind actions and effects on structures; and wind hazards, vulnerability and risk. In order to provide a comprehensive overview of wind and its manifold effects, the book combines scientific, descriptive and narrative chapters. The book is chiefly intended for students and lecturers, for those who want to learn about the genesis and evolution of this topic, and for the multitude of scholars whose work involves the wind.