Record Nr. UNINA9910774880103321 **Titolo** Aeroelastic phenomena and pedestrian-structure dynamic interaction on non-conventional bridges and footbridges / / edited by Claudio Borri & Claudio Mannini Firenze:,: Firenze University Press,, 2010 Pubbl/distr/stampa Descrizione fisica 1 online resource (148 pages): illustrations; digital, PDF file(s) Strumenti per la didattica e la ricerca;; 107 Collana Altri autori (Persone) **BorriClaudio** ManniniClaudio Lingua di pubblicazione Italiano **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Sommario/riassunto Fluid-structure and pedestrian-structure interaction phenomena are extremely important for non-conventional bridges. The results presented in this volume concern: simplified formulas for flutter assessment; innovative structural solutions to increase the aeroelastic stability of long-span bridges; numerical simulations of the flow around a benchmark rectangular cylinder; examples of designs of large structures assisted by wind-tunnel tests; analytical, computational and experimental investigation of the synchronisation mechanisms between pedestrians and footbridge structures. The present book is addressed to a wide audience including professionals, doctoral students and researchers, aiming to increase their know-how in the field of wind

engineering, bluff-body aerodynamics and bridge dynamics.