Record Nr. UNISA996466682103316 Autore Arbocz Johann Titolo Buckling and Post-Buckling [[electronic resource]]: Four Lectures in Experimental, Numerical and Theoretical Solid Mechanics Based on Talks Given at the CISM-Meeting Held in Udine, Italy, September 29-October 3, 1985 / / by Johann Arbocz, Michel Potier-Ferry, Josef Singer, Viggo Tvergaard Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 1987 **ISBN** 3-540-47875-2 Edizione [1st ed. 1987.] Descrizione fisica 1 online resource (VII, 248 p. 12 illus.) Lecture Notes in Physics, , 0075-8450;; 288 Collana 531 Disciplina Soggetti Mechanics **Physics** Classical Mechanics Mathematical Methods in Physics Numerical and Computational Physics, Simulation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Foundations of elastic postbuckling theory -- Post-buckling behaviour Nota di contenuto of structures numerical techniques for more complicated structures --Effect of plasticity on post-buckling behaviour -- Experimental techniques and comparison with theoretical results. The four lectures presented in this volume discuss recent ideas such as Sommario/riassunto bifurcation, catastrophe and singular theory in elastic post-buckling but avoid advanced mathematics. The influence of imperfections and boundary conditions on the maximal load of stiffened shells of revolution is studied by numerical methods. Experimental methods to test compressed structures are presented and will serve as a useful guide for engineers and physicists. Also of practical importance is the thorough discussion of the state of the art in plastic buckling of plates and shells under the influence of the constitutive laws. The lectures are intended for postgraduate students, but at the same time they should

serve as a review for researchers and engineers in solid mechanics.