1. Record Nr. UNISA996466523203316 Autore Moltó Aníbal Titolo A Nonlinear Transfer Technique for Renorming [[electronic resource] /] / by Aníbal Moltó, José Orihuela, Stanimir Troyanski, Manuel Valdivia Pubbl/distr/stampa Berlin, Heidelberg: .: Springer Berlin Heidelberg: .: Imprint: Springer. , 2009 **ISBN** 3-540-85031-7 Edizione [1st ed. 2009.] Descrizione fisica 1 online resource (XI, 148 p.) Collana Lecture Notes in Mathematics, , 0075-8434;; 1951 516.36 Disciplina Soggetti Differential geometry Functional analysis Differential Geometry **Functional Analysis** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia ISSN 0075-8434 for print edition. Note generali Nota di bibliografia Includes bibliographical references and index. ?-Continuous and Co-?-continuous Maps -- Generalized Metric Spaces Nota di contenuto and Locally Uniformly Rotund Renormings -- ?-Slicely Continuous Maps -- Some Applications -- Some Open Problems. Sommario/riassunto Abstract topological tools from generalized metric spaces are applied in this volume to the construction of locally uniformly rotund norms on Banach spaces. The book offers new techniques for renorming problems, all of them based on a network analysis for the topologies involved inside the problem. Maps from a normed space X to a metric space Y, which provide locally uniformly rotund renormings on X, are studied and a new frame for the theory is obtained, with interplay between functional analysis, optimization and topology using subdifferentials of Lipschitz functions and covering methods of metrization theory. Any one-to-one operator T from a reflexive space X into c0 (T) satisfies the authors' conditions, transferring the norm to X. Nevertheless the authors' maps can be far from linear, for instance the duality map from X to X* gives a non-linear example when the norm in X is Fréchet differentiable. This volume will be interesting for the broad spectrum of specialists working in Banach space theory, and for

researchers in infinite dimensional functional analysis.