

1. Record Nr.	UNINA9910484094503321
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
Disciplina	516.36
Soggetti	Differential geometry Functional analysis Differential Geometry Functional Analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	ISSN 0075-8434 for print edition.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	?-Continuous and Co-?-continuous Maps -- Generalized Metric Spaces 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 $c_0(T)$ 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.

