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Autore	D'Alessandro Paolo	
Titolo	On Range Space Techniques, Convex Cones, Polyhedra and Optimization in Infinite Dimensions / / by Paolo d'Alessandro	
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Descrizione fisica	1 online resource (726 pages)	
Disciplina	519.6	
Soggetti	Mathematical optimization	
	Continuous Optimization	
	Optimization	
	Optimització matemàtica	
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Lingua di pubblicazione	Inglese	
Formato	Materiale a stampa	
Livello bibliografico	Monografia	
Nota di contenuto	-- Introduction. -- Basic Facts of Set Theory. -- Linear Spaces. -- Rudiments of General Topology. -- Filters: the Fifth Equivalence. -- Hahn Banach andSeparation Theorems. -- Locally Convex and Barrelled Spaces. -- Metrics and pseudometrics, Norms and Pseudonorms. -- Topological Form of Hahn Banach and Separation Theorems. -- Extreme points, Faces, Support and the KreinMilman Theorem. -- Function Spaces.	
Sommario/riassunto	This book is a research monograph with specialized mathematical preliminaries. It presents an original range space and conic theory of infinite dimensional polyhedra (closed convex sets) and optimization over polyhedra in separable Hilbert spaces, providing, in infinite dimensions, a continuation of the author's book: A Conical Approach to Linear Programming, Scalar and Vector Optimization Problems, Gordon and Breach Science Publishers, Amsterdam, 1997. It expands and improves author's new approach to the Maximum Priciple for norm oprimal control of PDE, based on theory of convex cones, providing shaper results in various Hilbert space and Banach space settings. It	

provides a theory for convex hypersurfaces in lts and Hilbert spaces. For these purposes, it introduces new results and concepts, like the generalizations to the non compact case of cone capping and of the Krein Milman Theorem, an extended theory of closure of pointed cones, the notion of beacon points, and a necessary and sufficient condition of support for void interior closed convex set (complementing the Bishop Phelps Theorem), based on a new decomposition of non closed non pointed cones with non closed lineality space.