

1. Record Nr.	UNINA9910299994903321
Autore	Cialdea Alberto
Titolo	Semi-bounded differential operators, contractive semigroups and beyond [[electronic resource] /] / by Alberto Cialdea, Vladimir Maz'ya
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Birkhäuser, , 2014
ISBN	3-319-04558-X
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (262 p.)
Collana	Operator Theory: Advances and Applications, , 0255-0156 ; ; 243
Disciplina	515.7242
Soggetti	Operator theory Partial differential equations Operator Theory Partial Differential Equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- 1 Preliminary facts on semi-boundedness of forms and operators -- 2 Lp-dissipativity of scalar second order operators with complex coefficients -- 3 Elasticity system -- 4 Lp-dissipativity for systems of partial differential operators -- 5 The angle of Lp-dissipativity -- 6 Higher order differential operators in Lp -- 7 Weighted positivity and other related results -- References.
Sommario/riassunto	This book examines the conditions for the semi-boundedness of partial differential operators, which are interpreted in different ways. For example, today we know a great deal about L2-semibounded differential and pseudodifferential operators, although their complete characterization in analytic terms still poses difficulties, even for fairly simple operators. In contrast, until recently almost nothing was known about analytic characterizations of semi-boundedness for differential operators in other Hilbert function spaces and in Banach function spaces. This book works to address that gap. As such, various types of semi-boundedness are considered and a number of relevant conditions which are either necessary and sufficient or best possible in a certain sense are presented. The majority of the results reported on are the authors' own contributions.

