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	Titolo	Non-Self-Adjoint Differential Operators, Spectral Asymptotics and Random Perturbations / / by Johannes Sjöstrand
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	Collana	Pseudo-Differential Operators, Theory and Applications, , 2297-0355 ; ; 14
	Disciplina	515.7246
	Soggetti	Functions of complex variables
		Differential equations
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		Operator theory
		Functions of a Complex Variable
		Several Complex Variables and Analytic Spaces
		Ordinary Differential Equations
		Partial Differential Equations
		Operator Theory
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
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	Sommario/riassunto	The asymptotic distribution of eigenvalues of self-adjoint differential operators in the high-energy limit, or the semi-classical limit, is a classical subject going back to H. Weyl of more than a century ago. In the last decades there has been a renewed interest in non-self-adjoint differential operators which have many subtle properties such as instability under small perturbations. Quite remarkably, when adding small random perturbations to such operators, the eigenvalues tend to distribute according to Weyl's law (quite differently from the distribution for the unperturbed operators in analytic cases). A first result in this direction was obtained by M. Hager in her thesis of 2005. Since then, further general results have been obtained, which are the main subject of the present book. Additional themes from the theory of

non-self-adjoint operators are also treated. The methods are very much based on microlocal analysis and especially on pseudodifferential operators. The reader will find a broad field with plenty of open problems.