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	Sommario/riassunto	There has recently been a renewal of interest in Fokker-Planck operators, motivated by problems in statistical physics, in kinetic equations and differential geometry. Compared to more standard problems in the spectral theory of partial differential operators, those operators are not self-adjoint and only hypoelliptic. The aim of the

analysis is to give, as generally as possible, an accurate qualitative and quantitative description of the exponential return to the thermodynamical equilibrium. While exploring and improving recent results in this direction this volume proposes a review of known techniques on: the hypoellipticity of polynomial of vector fields and its global counterpart; the global Weyl-Hörmander pseudo-differential calculus, the spectral theory of non-self-adjoint operators, the semi-classical analysis of Schrödinger-type operators, the Witten complexes and the Morse inequalities.