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Nota di contenuto	- 1. Preliminaries. - 2. Homogenization Algebras on RN -- 3. - Convergence: The Periodic Setting -- 4. -Convergence: The General Setting -- 5. Homogenization of Elliptic Operators -- 6. Homogenization of Parabolic Operators I -- 7. Homogenization Of Parabolic Operators II -- 8. Reiterated Homogenization.
Sommario/riassunto	The book presents a deterministic homogenization theory intended for the mathematical analysis of non-stochastic multiscale problems, both within and beyond the periodic setting. The main tools are the so-called homogenization algebras, the classical Gelfand representation theory, and a class of actions by the multiplicative group of positive real numbers on numerical spaces. The basic approach is the Sigma-

convergence method, which generalizes the well-known two-scale convergence procedure. Numerous problems are worked out to illustrate the theory and highlight its broad applicability. The book is primarily intended for researchers (including PhD students) and lecturers interested in periodic as well as non-periodic homogenization theory.