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	Sommario/riassunto	Periodic cyclic homology is a homology theory for non-commutative algebras that plays a similar role in non-commutative geometry as de Rham cohomology for smooth manifolds. While it produces good results for algebras of smooth or polynomial functions, it fails for bigger algebras such as most Banach algebras or C*-algebras. Analytic and local cyclic homology are variants of periodic cyclic homology that work better for such algebras. In this book the author develops and compares these theories, emphasising their homological properties. This includes the excision theorem, invariance under passage to certain dense subalgebras, a Universal Coefficient Theorem that relates them to K-theory, and the Chern-Connes character for K-theory and K-homology. The cyclic homology theories studied in this text require a good deal of functional analysis in bornological vector spaces, which is supplied in the first chapters. The focal points here are the relationship with inductive systems and the functional calculus in non-commutative bornological algebras. The book is mainly intended for researchers and advanced graduate students interested in non-commutative geometry. Some chapters are more elementary and independent of the rest of the book, and will be of interest to researchers and students working in functional analysis and its

applications.