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| Sommario/riassunto | This book presents an approximation theory for a general class of nonlinear evolution equations in Banach spaces and the semigroup theory, including the linear (Hille-Yosida), nonlinear (Crandall-Liggett) and time-dependent (Crandall-Pazy) theorems. The implicit finite difference method of Euler is shown to generate a sequence convergent to the unique integral solution of evolution equations of the maximal monotone type. Moreover, the Chernoff theory provides a sufficient condition for consistent and stable time integration of time-dependent nonlinear equations. The Trotter-Kato theorem and |