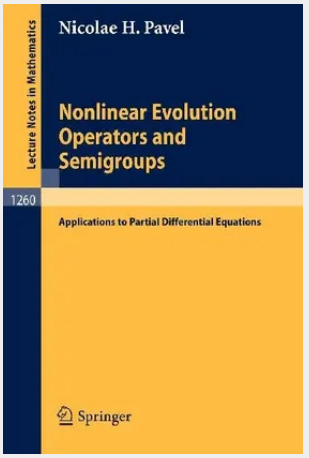
Pavel

Nonlinear Evolution Operators and Semigroups

Applications to Partial Differential Equations



This research monograph deals with nonlinear evolution operators and semigroups generated by dissipative (accretive), possibly multivalued operators, as well as with the application of this theory to partial differential equations. It shows that a large class of PDE's can be studied via the semigroup approach. This theory is not available otherwise in the self-contained form provided by these Notes and moreover a considerable part of the results, proofs and methods are not to be found in other books. The exponential formula of Crandall and Liggett, some simple estimates due to Kobayashi and others, the characterization of compact semigroups due to Brézis, the proof of a fundamental property due to Ursescu and the author and some applications to PDE are of particular interest. Assuming only basic knowledge of functional analysis, the book will be of interest to researchers and graduate students in nonlinear analysis and PDE, and to mathematical physicists.

This research monograph deals with nonlinear evolution operators and semigroups generated by dissipative (accretive), possibly multivalued operators, as well as with the application of this theory to partial differential equations. It shows that a large class of PDE's can be studied via the semigroup approach. This theory is not available otherwise in the self-contained form provided by these Notes and moreover a considerable part of the results, proofs and methods are not to be found in other books. The exponential formula of Crandall and Liggett, some simple estimates due to Kobayashi and others, the characterization of compact semigroups due to Brézis, the proof of a fundamental property due to Ursescu and the author and some applications to PDE are of particular interest. Assuming only basic knowledge of functional analysis, the book will be of interest to researchers and graduate students in nonlinear analysis and PDE, and to mathematical physicists.

53,49 €
49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783540179740
Medium: Buch
ISBN: 978-3-540-17974-0
Verlag: Springer
Erscheinungstermin: 24.06.1987
Sprache(n): Englisch
Auflage: 1. Auflage 1987
Serie: Lecture Notes in Mathematics
Produktform: Kartoniert
Gewicht: 446 g
Seiten: 288
Format (B x H): 155 x 235 mm