

1. Record Nr.	UNINA9910468035403321
Autore	Korpusov M. O.
Titolo	Blow-up in nonlinear equations of mathematical physics : theory and methods // Maxim Olegovich Korpusov [and three others]
Pubbl/distr/stampa	Berlin ; ; Boston : , : De Gruyter, , 2018
ISBN	3-11-059900-7 3-11-060207-5
Descrizione fisica	1 online resource (348 pages)
Collana	De Gruyter series in nonlinear analysis and applications ; ; Volume 27
Disciplina	530.155353
Soggetti	Differential equations, Partial - Numerical solutions Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Introduction -- Notation -- List Of Nonlinear Equations -- 1. Nonlinear Capacity Method Of S. I. Pokhozhaev -- 2. Method Of Self-Similar Solutions Of V. A. Galaktionov -- 3. Method Of Test Functions In Combination With Method Of Nonlinear Capacity -- 4. Energy Method Of H. A. Levine -- 5. Energy Method Of G. Todorova -- 6. Energy Method Of S. I. Pokhozhaev -- 7. Energy Method Of V. K. Kalantarov And O. A. Ladyzhenskaya -- 8. Energy Method Of M. O. Korpusov And A. G. Sveshnikov -- 9. Nonlinear Schrödinger Equation -- 10. Variational Method Of L. E. Payne And D. H. Sattinger -- 11. Breaking Of Solutions Of Wave Equations -- A Auxiliary And Additional Results -- Bibliography -- Index
Sommario/riassunto	The present book carefully studies the blow-up phenomenon of solutions to partial differential equations, including many equations of mathematical physics. The included material is based on lectures read by the authors at the Lomonosov Moscow State University, and the book is addressed to a wide range of researchers and graduate students working in nonlinear partial differential equations, nonlinear functional analysis, and mathematical physics. ContentsNonlinear capacity method of S. I. PokhozhaevMethod of self-similar solutions of V. A. GalaktionovMethod of test functions in combination with method of nonlinear capacityEnergy method of H. A. LevineEnergy method of G. TodorovaEnergy method of S. I. PokhozhaevEnergy method of V. K.

Kalantarov and O. A. Ladyzhenskaya
Energy method of M. O. Korpusov
and A. G. Sveshnikov
Nonlinear Schrödinger equation
Variational method
of L. E. Payne and D. H. Sattinger
Breaking of solutions of wave
equations
Auxiliary and additional results
