

1. Record Nr.	UNINA9910454344603321
Titolo	Mathematical aspects of nonlinear dispersive equations [[electronic resource] /] / Jean Bourgain, Carlos E. Kenig, and S. Klainerman, editors
Pubbl/distr/stampa	Princeton, : Princeton University Press, 2007
ISBN	1-282-12960-0 9786612129605 1-4008-2779-5
Edizione	[Course Book]
Descrizione fisica	1 online resource (309 p.)
Collana	Annals of mathematics studies ; ; no. 163
Classificazione	SI 830
Altri autori (Persone)	BourgainJean <1954-> KenigCarlos E. <1953-> KlainermanSergiu <1950->
Disciplina	515/.355
Soggetti	Differential equations, Nonlinear Nonlinear partial differential operators Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Preface -- Chapter 1. On Strichartz's Inequalities and the Nonlinear Schrödinger Equation on Irrational Tori / Bourgain, J. -- Chapter 2. Diffusion Bound for a Nonlinear Schrödinger Equation / Bourgain, J. / Wang, W.-M. -- Chapter 3. Instability of Finite Difference Schemes for Hyperbolic Conservation Laws / Bressan, A. / Baiti, P. / Jenssen, H. K. -- Chapter 4. Nonlinear Elliptic Equations with Measures Revisited / Brezis, H. / Marcus, M. / Ponce, A. C. -- Chapter 5. Global Solutions for the Nonlinear Schrödinger Equation on Three-Dimensional Compact Manifolds / Burq, N. / Gérard, P. / Tzvetkov, N. -- Chapter 6. Power Series Solution of a Nonlinear Schrödinger Equation / Christ, M. -- Chapter 7. Eulerian-Lagrangian Formalism and Vortex Reconnection / Constantin, P. -- Chapter 8. Long Time Existence for Small Data Semilinear Klein-Gordon Equations on Spheres / Delort, J.-M. / Szeftel, J. -- Chapter 9. Local and Global Wellposedness of Periodic KP-I Equations / Ionescu, A. D. / Kenig, C. E. -- Chapter 10. The Cauchy Problem for the Navier-Stokes Equations with Spatially Almost Periodic Initial Data / Giga, Y. / Mahalov, A. /

Nicolaenko, B. -- Chapter 11. Longtime Decay Estimates for the Schrödinger Equation on Manifolds / Rodnianski, I. / Tao, T. -- Contributors -- Index

Sommario/riassunto

This collection of new and original papers on mathematical aspects of nonlinear dispersive equations includes both expository and technical papers that reflect a number of recent advances in the field. The expository papers describe the state of the art and research directions. The technical papers concentrate on a specific problem and the related analysis and are addressed to active researchers. The book deals with many topics that have been the focus of intensive research and, in several cases, significant progress in recent years, including hyperbolic conservation laws, Schrödinger operators, nonlinear Schrödinger and wave equations, and the Euler and Navier-Stokes equations.
