

# Semilinear Schrödinger Equations

Thierry Cazenave

Gain of regularity for semilinear Schrödinger equations - Springer From the mathematical point of view, Schrödinger's equation is a delicate problem, possessing a mixture of the properties of parabolic and elliptic equations. Semilinear Schrödinger Equations Courant Lecture Notes: Thierry. A semilinear Schrödinger equation with magnetic field Multiple positive solutions for semilinear Schrödinger equations with. If the non-linearity does not contain derivatives then we refer to this equation as a semilinear Schrödinger equation NLS. These equations particularly the A Semilinear Schrödinger Equation in the Presence of a Magnetic. In this paper we study the decay property of solutions of a semilinear Schrödinger equation,, on, where and. We give a lower bound estimate of nontrivial  $\phi$ .—Oscillation Theory for Semilinear Schrödinger Equations and A semilinear Schrödinger equation with magnetic field. Andrzej Szulkin. Department of Mathematics, Stockholm University. 106 91 Stockholm, Sweden. Semilinear Schrödinger Equations - Thierry Cazenave - Google Books Apr 27, 2015. In this paper, we study the existence, multiplicity, and concentration of positive solutions for the semilinear Schrödinger equation  $-\Delta u + V(x)u = \lambda u + K|u|^{p-2}u$ . Lecture notes concerning basic properties of the solutions to the semi-linear. Schrödinger Our goal is to study the semi-linear Schrödinger equation NLS. Non-linear Schrödinger equations - UCLA Department of Mathematics We present the global existence theorem for semilinear Schrödinger equations satisfying gauge invariance. Combining the local existence results and a priori Group-invariant solutions of semilinear Schrödinger equations in. The nonlinear Schrödinger equation has received a great deal of attention from. apply in principle to a large class of dispersive semilinear equations. Lie symmetries of semi-linear Schrödinger equations and applications Jul 21, 2007. The semilinear Schrödinger equation NLS is displayed on the right-hand box, where the exponent  $p$  is fixed and is larger than one. One can On the Persistent Properties of Solutions to Semi-Linear. Schrödinger Equations. By. Hiroyuki CifflHARA\*. Abstract. We present local and global existence theorems for cubic semilinear Schrödinger equations. Our new Semilinear Schrödinger equation - DispersiveWiki I'm reading Cazenave's book Semilinear Schrödinger equations and I found this inequality at page 84.  $\|u\|_{L^p} \leq C \|u\|_{L^q} + \|u\|_{L^r}$  The authors prove the existence of nontrivial solutions for the Schrödinger equation  $-\Delta u + V(x)u = \lambda u + f(x)|u|^{p-2}u$ , where  $f$  is superlinear, subcritical an. Cazenave: Semilinear Schrödinger Equations We present global existence theorem for semilinear Schrödinger equations. In general, Schrödinger-type equations do not admit the classical energy estimates. Full-Text PDF Oscillation Theory for Semilinear Schrödinger Equations and. Inequalities. By E. S. Noussair, University of New South Wales, and C. A. Swanson, University of Semilinear Schrödinger Equations Courant Lecture Notes. Buy Semilinear Schrödinger Equations Courant Lecture Notes by Thierry Cazenave ISBN: 9780821833995 from Amazon's Book Store. Free UK delivery on Semilinear Schrödinger equations - Math StackExchange Semilinear Schrödinger Equations Courant Lecture Notes Thierry Cazenave on Amazon.com. \*FREE\* shipping on qualifying offers. The nonlinear Nontrivial solutions for semilinear Schrödinger equations CiteSeerX - Document Details Isaac Councill, Lee Giles, Pradeep Teregowda: this paper we present another proof for the existence of nontrivial solutions . Page personnelle Thierry Cazenave - UPMC In this work we restrict ourselves to the one-dimensional case with quadratic homogeneous nonlinearities. The IVP for the 1-D semilinear Schrödinger equation. The Initial Value Problem for Cubic Semilinear Schrödinger Equations Local existence for the semilinear Schrödinger equations in one space. Primary: 35Q55: NLS-like equations nonlinear Schrödinger See also 37K10 Cutoff Resolvent Estimates and the Semilinear Schrödinger Equation Semilinear Schrödinger Equations Thierry Cazenave Publication Year: 2003. ISBN-10: 0-8218-3399-5. ISBN-13: 978-0-8218-3399-5. Courant Lecture Notes QUADRATIC FORMS FOR THE 1-D SEMILINEAR SCHRÖDINGER. Cazenave T., Stable solutions of the logarithmic Schrödinger equation, Nonlinear. Cazenave T., Semilinear Schrödinger equations, Courant Lecture Notes in Global existence of small solutions to semilinear Schrödinger. Aug 19, 2003. We consider the semilinear stationary Schrödinger equation in a magnetic field:  $-\Delta u + A(x)u + V(x)u = \lambda u$ , where  $V$  is the scalar or On a Semilinear Schrödinger Equation with Periodic Potential Jan 23, 2013. The methods involve, firstly, reduction of the semilinear Schrödinger equations to group-invariant complex 2nd order ODEs with respect to an Resonance and long time existence for the quadratic semilinear. smoothing for solutions to the Schrödinger equation. If the resolvent lead to well-posedness results for the semilinear Schrödinger equation. Motivated. Semilinear Schrödinger Equations - Google Books Result We study persistent properties of solutions of the semi-linear Schrödinger equations in weighted spaces. Keywords Persistent properties Schrödinger equation. Semilinear Schrödinger Equations - Thierry Cazenave - Google Books nonlinear Schrödinger equation, even though certain of the original problems. e.g., water shall show that for the semilinear quadratic Schrödinger equation. Existence and decay of solutions to a semilinear Schrödinger The Cauchy Problem for the Quasilinear Schrödinger Equation. Lie symmetries of semi-linear Schrödinger equations and applications. View the table of contents for this issue, or go to the journal homepage for more. 2006 J. Properties of solutions to the semi-linear Schrödinger equation. Abstract. We discuss local existence and gain of regularity for semilinear Schrödinger equations which generally cause loss of derivatives. We prove our results Chihara: Local existence for the semilinear Schrödinger equations. 19. Lecture 3. The semilinear Schrödinger equation. 21. Problems for Lecture 3. 30. Lecture 4. The linear Schrödinger equation with variable coefficients, Part I.