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Curriculum vitæ

Né le 8 juillet 1954, à Suresnes, France. Nationalité française.
1975: Maîtrise de Mathématiques, Université Pierre et Marie Curie, Paris.
1976: D.E.A. d'Analyse Numérique, Université Pierre et Marie Curie, Paris.
Boursier D.G.R.S.T d'octobre 1976 à septembre 1978.
1978: Doctorat de 3e cycle, Université Pierre et Marie Curie, Paris, sous la direction de H. Brezis. Titre: "Équations de Schrödinger non linéaires".
Entre au C.N.R.S en janvier 1979 comme attaché de recherche dans l'équipe de H. Brezis au Laboratoire d'Analyse Numérique de l'Université Pierre et Marie Curie.
Promu au grade de chargé de recherche en octobre 1983.
1984: Doctorat d'État, Université Pierre et Marie Curie, Paris, sous la direction de H. Brezis. Titre: "Propriétés globales des solutions de certaines équations d'évolution non linéaires".
Promu au grade de directeur de recherche en octobre 1995.
Retraité depuis le 01/01/2021.

Thèmes de recherche

- Equations dispersives non-linéaires (Schrödinger, ondes, Dirac, ...)
- Problèmes elliptiques et paraboliques non-linéaires
- Equation des ondes non-linéaire dans les domaines bornés (quasi-périodicité, recurrence, propriétés oscillatoires, ...)

Activités éditoriales

- Éditeur associé: *Communications in Contemporary Mathematics* (1998–2020)

• Éditeur associé: *Revista Matemática Complutense* (2004–2020)
• Éditeur associé: *Mathematics Applied in Science and Technology* (2006–2020)
• Éditeur associé: *Evolution Equations and Control Theory* (2012–2020)

Thèses dirigées

• Ali Sili (1987), actuellement Maître de Conférence à l'Unversité de Toulon (France)
• José Manuel Gonçalves Ribeiro (1991), actuellement Professeur à l'Universidade de Évora (Portugal)
• Yvan Martel (1996), actuellement Professeur à l'École Polytechnique (France)
• Júlia Matos (1998), actuellement Maître de Conférence à l'Unversité d'Évry-val d'Essonne (France)
• Pascal Bégout (2001), actuellement Maître de Conférence à l'Unversité Toulouse I Capitole (France)
• Mickaël Chekroun (2009, co-direction avec Michael Ghil), actuellement chercheur à UCLA (USA)
• Jian Xie (2010, co-direction avec Daoyuan Fang), actuellement Assistant Professor à Hangzhou Normal University (Chine)

Enseignement

Depuis 1981, 46 cours de niveau DEA/M2, au Laboratoire Jacques-Louis Lions ainsi qu'à l'étranger: Aracaju (Brésil), Bangalore (Inde), Bilbao (Espagne), Blaubeuren (Allemagne), Bucarest (Roumanie), Campinas (Brésil), Craiova (Roumanie), Hangzhou (Chine), Istanbul (Turquie), New York (USA), Porto Novo (Bénin) Rio de Janeiro (Brésil), Seville (Espagne), Téhéran (Iran).

Publications

[1] Baillon J.-B., Cazenave T. et Figueira M.: Équation de Schrödinger non linéaire. C. R. Acad. Sci. Paris Sér. I Math. **284** (1977), no. 15, 869–872. (MR0433025)

[2] Baillon J.-B., Cazenave T. et Figueira M.: Équation de Schrödinger avec non-linéarité intégrale. C. R. Acad. Sci. Paris Sér. I Math. **284** (1977), no. 16, 939–942. (MR0433026)

[3] Cazenave T.: Équations de Schrödinger non-linéaires. Thèse de 3° Cycle, Université Pierre et Marie Curie, Paris, 1978.

[4] Cazenave T.: Équations de Schrödinger non linéaires en dimension deux. Proc. Royal Soc. Edinburgh Sect. A **84** (1979), no. 3-4, 327–346. (MR559676) (doi: 10.1017/S0308210500017182)

[5] Cazenave T.: A remark on Schrödinger's equation with a short range potential. Portugal. Math. **38** (1979), no. 1-2, 39–43. (MR682354) (link: http://purl.pt/2877/1/)

[6] Cazenave T. et Haraux A.: Équation de Schrödinger avec non-linéarité logarithmique. C. R. Acad. Sci. Paris Sér. I Math. **288** (1979), no. 9, 253–256. (MR524786)

[7] Cazenave T. et Haraux A.: Équation d'évolution avec non-linéarité logarithmique. Ann Fac. Sci. Toulouse Math. **2** (1980), no. 1, 21–51. (583902) (link: http://www.numdam.org/item?id=AFST_1980_5_2_1_21_0)

[8] Berestycki H. et Cazenave T.: Instabilité des états stationnaires dans les équations de Schrödinger et de Klein-Gordon non linéaires. C. R. Acad. Sci. Paris Sér. I Math. **293** (1981), no. 9, 489–492. (MR646873)

[9] Cazenave T. et Lions P.-L.: Orbital stability of standing waves for some nonlinear Schrödinger equations. Comm. Math. Phys. **85** (1982), no. 4, 549–561. (MR0677997) (doi: 10.1007/BF01403504)

[10] Cazenave T., Dias J.P. et Figueira M.: A remark on the decay of the solutions of some Schrödinger equations. Rend. Sem. Mat. Univ. Polit. Torino **40** (1982), no. 1, 129–137. (MR706058)

[11] Cazenave T.: Stable solutions of the logarithmic Schrödinger equation. Nonlinear Anal. **7** (1983), no. 10, 1127–1140. (MR0719365) (doi: 10.1016/0362-546X(83)90022-6)

[12] Cazenave T.: Stability and instability of stationary states in nonlinear Schrödinger equations. In *Contributions to nonlinear partial differential equations*, C. Bardos, A. Damlamian, J.I. Díaz and J. Hernández (eds.), Research Notes in Math. **89**, Pitman, London, 1983, 123–129. (MR730802)

[13] Berestycki H. et Cazenave T.: Instability of stationary states in nonlinear Schrödinger and Klein-Gordon equations. Publication du Laboratoire d'Analyse Numérique **84001**, Université Pierre et Marie Curie, Paris, 1984.

[14] Cazenave T. et Lions P.-L.: Solutions globales d'équations de la chaleur semi linéaires. Comm. Partial Differential Equations **9** (1984), no. 10, 955–978. (MR0755928) (doi: 10.1080/03605308408820353)

[15] Cazenave T.: Propriétés globales des solutions de quelques équations d'évolution non-linéaires. Thèse d'État, Université Pierre et Marie Curie, Paris, 1984.

[16] Cazenave T. et Haraux A.: Propriétés oscillatoires des solutions de certaines équations des ondes semi-linéaires, C. R. Acad. Sci. Paris Sér. I Math. **298** (1984), no. 18, 449–452. (MR750743)

[17] Cazenave T.: Uniform estimates for solutions of nonlinear Klein-Gordon equations. J. Funct. Anal. **60** (1985), no. 1, 36–55. (MR0780103) (doi: 10.1016/0022-1236(85)90057-6)

[18] Cazenave T.: Some remarks on the asymptotic behaviour of solutions to nonlinear Schrödinger equations. iIn *Bielefeld encounters in mathematics and physics IV and V, trends and developments in the eighties*, S. Albeverio and Ph. Blanchard (eds.), World Scientific, Singapore, 1985, 116–129. (MR853745)

[19] Cazenave T. et Haraux A.: Équations d'évolution non-linéaires: théorie élémentaire et propriétés globales. Publication du Laboratoire d'Analyse Numérique **85026**, Université Pierre et Marie Curie, Paris, 1985.

[20] Cazenave T. et Haraux A.: On the nature of free oscillations associated with some semilinear wave equations. In *Nonlinear partial differential equations and their applications, College de France seminar, vol 7*, Research Notes in Math. **122**, Pitman, London, 1985, 59–79. (MR879457)

[21] Cazenave T. et Vázquez L.: Existence of localized solutions for a nonlinear classical Dirac field. Comm. Math. Phys. **105** (1986), no. 1, 35–47. (847126) (doi: 10.1007/BF01212340)

[22] Cazenave T.: Stationary states of nonlinear Dirac equations. In *Semigroups, Theory and Applications, Vol I*, H. Brezis, M.G. Crandall and F. Kappel (eds.), Pitman Res. Notes in Math. Ser. **141**, Longman, Harlow, 1986, 36–42. (MR876926)

[23] Cazenave T.: Nonlinear Dirac equations: existence of stationary states. In *Contributions to Nonlinear Partial Differential Equations, Vol. II*, J.I. Díaz and P.-L. Lions (eds.), Pitman Res. Notes in Math. Ser. **155**, Longman, Harlow, 1987, 69–78. (MR907722)

[24] Cazenave T. et Haraux A.: Oscillatory phenomena associated to semilinear wave equations in one spatial dimension. Trans. Amer. Math. Soc. **300** (1987), no. 1, 207–233. (MR0871673) (doi: 10.1090/S0002-9947-1987-0871673-2)

[25] Cazenave T. et Haraux A.: Some oscillation properties of the wave equation in several space dimensions. J. Funct. Anal. **76** (1988), no. 1, 87–109. (MR0923046) (doi: 10.1016/0022-1236(88)90050-X)

[26] Cazenave T. et Weissler F. B.: The Cauchy problem for the nonlinear Schrödinger equation in H^1. Manuscripta Math. **61** (1988), no. 4, 477–494. (MR0952091) (doi: 10.1007/BF01258601)

[27] Cazenave T.: Équations d'évolution non-linéaires: théorie élémentaire et propriétés globales. Publication du Laboratoire d'Analyse Numérique **88001**, Université Pierre et Marie Curie, Paris,1988.

[28] Cazenave T.: Nonlinear evolution equations. Preprint, Tata Institute of Fundamental Research, Bangalore, 1988 (130 p.).

[29] Balabane M., Cazenave T., Douady A. et Merle F.: Existence d'états excités pour une équation de Dirac non-linéaire. C. R. Acad. Sci. Paris Sér. I Math. **306** (1988), no. 3, 117–120. (MR929102)

[30] Balabane M., Cazenave T., Douady A. et Merle F.: Existence of excited states for a nonlinear Dirac field. Comm. Math. Phys. **119** (1988), no. 1, 153–176. (MR0968485) (doi: 10.1007/BF01218265)

[31] Cazenave T. et Esteban M. J.: On the stability of stationary states for nonlinear Schrödinger equations with an external magnetic field, Mat. Apl. Comput. **7** (1988), no. 3, 155–168. (MR994761)

[32] Cazenave T., Haraux A., Vázquez L. et Weissler F. B.: Nonlinear effects in the wave equation with a cubic restoring force. Comp. Mech. **5** (1989), 49–72. (doi: 10.1007/BF01046879)

[33] Cazenave T. et Weissler F. B.: Some remarks on the nonlinear Schrödinger equation in the subcritical case. In *New Methods and Results in Nonlinear Field Equations*, Ph. Blanchard, J.-P. Dias and J. Stubbe (eds.), Lecture Notes in Phys. **347**, Springer, New York, 1989, 59–69. (MR1030060) (doi: 10.1007/BFb0025761)

[34] Cazenave T. et Weissler F. B.: Some remarks on the nonlinear Schrödinger equation in the critical case. In *Nonlinear Semigroups, Partial Differential Equations, and Attractors*, T.L. Gill and W.W. Zachary (eds.), Lecture Notes in Math. **1394**, Springer, Berlin, 1989, 18–29. (MR1021011) (doi: 10.1007/BFb0086749)

[35] Cazenave T.: On the existence of stationary states for classical nonlinear Dirac fields. In *Hyperbolic Systems and Mathematical Physics*, Textos e Notas **41**, C.M.A.F., Lisbonne, 1989, 61–114.

[36] Cazenave T.: *An introduction to nonlinear Schrödinger equations*. Textos de Métodos Matemáticos **22**, I.M.U.F.R.J., Rio de Janeiro, 1989. 2^{nd} edition, #**26**, I.M.U.F.R.J., 1993. 3^{rd} edition, #**26**, I.M.U.F.R.J., 1996. 239 pp.

[37] Cazenave T.: On the propagation of confined waves along the geodesics. J. Math. Anal. Appl. **146** (1990), no. 2, 591–603. (MR1043125) (doi: 10.1016/0022-247X(90)90327-C)

[38] Cazenave T. et Weissler F. B.: The Cauchy problem for the critical nonlinear Schrödinger equation in H^s. Nonlinear Anal. **14** (1990), no. 10, 807–836. (MR1055532) (doi: 10.1016/0362-546X(90)90023-A)

[39] Cazenave T. et Haraux A.: *Introduction aux problèmes d'évolution semi-linéaires*. Mathématiques et Applications **1**, Ellipses, Paris, 1990. 142 pp. (MR1299976)

[40] Balabane M., Cazenave T. et Vázquez L.: Existence of standing waves for Dirac fields with singular nonlinearities. Comm. Math. Phys. **133** (1990), no. 1, 53–74. (MR1071235) (doi: 10.1007/BF02096554)

[41] Cazenave T. et Weissler F. B.: The structure of solutions to the pseudo-conformally invariant nonlinear Schrödinger equation. Proc. Royal Soc. Edinburgh Sect. A **117** (1991), no. 3-4, 251–273. (MR1103294) (doi: 10.1017/S0308210500024719)

[42] Cazenave T., Haraux A. et Weissler F. B.: Une équation des ondes complètement intégrable avec non-linéarité homogène de degré trois. C. R. Acad. Sci. Paris Sér. I Math. **313** (1991), no. 5, 237–241. (MR1126387)

[43] Cazenave T. et Weissler F. B.: Rapidly decaying solutions of the nonlinear Schrödinger equation. Comm. Math. Phys. **147** (1992), no. 1, 75–100. (MR1171761) (doi: 10.1007/BF02099529)

[44] Cazenave T., Haraux A. et Weissler F. B.: A class of nonlinear, completely integrable abstract wave equations. J. Dynam. Differential Equations **5** (1993), no. 1, 129–154. (MR1205457) (doi: 10.1007/BF01063738)

[45] Cazenave T., Haraux A. et Weissler F. B.: Detailed asymptotics for a convex Hamiltonian system with two degrees of freedom. J. Dynam. Differential Equations **5** (1993), no. 1, 155–187. (MR1205458) (doi: 10.1007/BF01063739)

[46] Cazenave T. et Escobedo M.: A two parameter shooting problem for a second order differential equation. J. Differential Equations **113** (1994), no. 2, 418–451. (MR1297665) (doi: 10.1006/jdeq.1994.1131)

[47] Cazenave T.: *Blow up and scattering in the nonlinear Schrödinger equation*. Textos de Métodos Matemáticos **30**, I.M.U.F.R.J., Rio de Janeiro, 1994. 2^{nd} edition, 1996. 85 pp.

[48] Cazenave T. et Weissler F. B.: Asymptotically periodic solutions for a class of nonlinear coupled oscillators. Portugal. Math. **52** (1995), no. 1, 109–123. (MR1324085) (link: http://www.emis.de/journals/PM/52f1/10.html)

[49] Cazenave T., Haraux A. et Weissler F. B.: Global behavior for some conservative nonlinear wave equations. Mat. Contemp. **8** (1995), 89–106. (MR1330033) (link: http://mc.sbm.org.br/docs/mc/pdf/8/a5.pdf)

[50] Brezis H., Cazenave T., Martel Y. et Ramiandrisoa A.: Retour sur les phénomènes d'explosion pour $u_t - \triangle u = g(u)$. C. R. Acad. Sci. Paris Sér. I Math. **321** (1995), no. 10, 1305–1308. (MR1363569)

[51] Cazenave T. et Weissler F. B.: Unstable simple modes of the nonlinear string. Quart. Appl. Math. **54** (1996), no. 2, 287–305. (MR1388017) (doi: 10.1090/qam/1388017)

[52] Cazenave T. et Dickstein F.: On the initial value problem for a linear model of well-reservoir coupling. Nonlinear World **3** (1996), no. 3, 567–587. (MR1411371)

[53] Brezis H., Cazenave T., Martel Y. et Ramiandrisoa A.: Blow up for $u_t - \triangle u = g(u)$ revisited. Adv. Differential Equations **1** (1996), no. 1, 73–90. (MR1357955) (link: http://projecteuclid.org/euclid.ade/1366896315)

[54] Brezis H. et Cazenave T.: A nonlinear heat equation with singular initial data. J. Anal. Math. **68** (1996), 277–304. (MR1403259) (doi: 10.1007/BF02790212)

[55] Cazenave T., Dickstein F. et Kavian O.: A parameter determination problem for a linear model of well-reservoir coupling. Mat. Contemp. **10** (1996), 87–97. (MR1425454) (link: http://mc.sbm.org.br/images/pdf/10/a4.pdf)

[56] Cazenave T. et Weissler F. B.: Solutions self-similaires de l'équation de Schrödinger nonlinéaire. In *Journées "Equations aux dérivées partielles", (Saint-Jean-de-Monts, 1997)*, Exp. No. II, 17 pp., Ecole Polytechnique, Centre de Mathématiques, Palaiseau 1997. (MR1482269) (link: http://archive.numdam.org/ARCHIVE/JEDP/JEDP_1997___/JEDP_1997___A2_0/JEDP_1997____A2_0.pdf)

[57] Cazenave T., Shatah J. et Shadi Tahvildar Zadeh A.: Harmonic maps of the Hyperbolic space and development of singularities in wave maps and Yang-Mills fields. Ann. Inst. H. Poincaré Phys. Théor. **68** (1998), no. 3, 315–349. (MR1622539) (link: http://www.numdam.org/item?id=AIHPA_1998__68_3_315_0)

[58] Cazenave T. et Dickstein F.: Implicit finite difference schemes for a linear model of well-reservoir coupling. IMA J. Numer. Anal. **18** (1998), no. 1, 91–120. (MR1492050) (doi: 10.1093/imanum/18.1.91)

[59] Cazenave T. et Weissler F. B.: Asymptotically self-similar global solutions of the nonlinear Schrödinger and heat equations. Math. Z. **228** (1998), no. 1, 83–120. (MR1617975) (doi: 10.1007/PL00004606)

[60] Cazenave T. et Haraux A.: *An introduction to semilinear evolution equations*. Translated from the 1990 French original by Yvan Martel and revised by the authors. Oxford Lecture Series in Mathematics and its Applications, **13**. The Clarendon Press, Oxford University Press, New York, 1998. xiv+186 pp. ISBN: 0-19-850277-X (MR1691574)

[61] Cazenave T. et Weissler F. B.: More self-similar solutions of the nonlinear Schrödinger equation. NoDEA Nonlinear Differential Equations Appl. **5** (1998), no. 3, 355–365. (MR1638912) (doi: 10.1007/s000300050050)

[62] Cazenave T., Dickstein F. et Escobedo M.: A semilinear heat equation with concave-convex nonlinearity. Rend. Mat. Appl. (7) **19** (1999), no. 2, 211–242. (MR1738524) (link: http://www1.mat.uniroma1.it/ricerca/rendiconti/ARCHIVIO/1999(2)/211-242.pdf)

[63] Cazenave T. et Weissler F. B.: Scattering theory and self-similar solutions for the nonlinear Schrödinger equation. SIAM J. Math. Anal. **31** (2000), no. 3, 625–650. (MR1745480) (doi: 10.1137/S0036141099351309)

[64] Cazenave T. et Dickstein F.: On the influence of boundary conditions on flows in porous media. J. Math. Anal. Appl. **253** (2001), no. 1, 79–106. (MR1804597) (doi: 10.1006/jmaa.2000.7062)

[65] Cazenave T., Vega L. et Vilela M.-C.: A note on nonlinear Schrödinger equations in weak L^p spaces. Commun. Contemp. Math. **3** (2001), no. 1, 153–162. (MR1820017) (doi: 10.1142/S0219199701000317)

[66] Cazenave T., Dickstein F., Escobedo M. et Weissler F.B.: Self-similar solutions of a nonlinear heat equation, J. Math. Sci. Univ. Tokyo **8** (2001), no. 3, 501–540. (MR1855457) (link: http://journal.ms.u-tokyo.ac.jp/abstract/jms080305.html)

[67] Cazenave T., Escobedo M. et Pozio M.A.: Some stability properties for minimal solutions of $-\Delta u = \lambda g(u)$. Port. Math. (N.S.) **59** (2002), no. 4, 373–391. (MR1942846) (link: http://www.emis.de/journals/PM/59f4/1.html)

[68] Cazenave T., Dickstein F. et Weissler F.B.: Universal solutions of the heat equation on $\mathbb{R}^N$. Discrete Contin. Dynam. Systems **9** (2003), no. 5, 1105–1132. (MR1974418) (doi: 10.3934/dcds.2003.9.1105)

[69] Cazenave T., Dickstein F. et Weissler F.B.: Universal solutions of a nonlinear heat equation on $\mathbb{R}^N$. Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5) **2** (2003), no. 1, 77–117. (MR1990975) (link: http://www.numdam.org/item?id=ASNSP_2003_5_2_1_77_0)

[70] Cazenave T.: *Semilinear Schrödinger equations*. Courant Lecture Notes in Mathematics, **10**. New York University, Courant Institute of Mathematical Sciences, New York; American Mathematical Society, Providence, RI, 2003. xiv+323 pp. ISBN: 0-8218-3399-5. (MR2002047) (doi: 10.1090/cln/010)

[71] Cazenave T., Dickstein F. et Weissler F.B.: Chaotic behavior of solutions of the Navier-Stokes system in $\mathbb{R}^N$. Adv. Differential Equations **10** (2005), no. 4, 361–398. (MR2122695) (link: http://projecteuclid.org/euclid.ade/1355867870)

[72] Cazenave T., Dickstein F. et Weissler F.B.: A solution of the heat equation with a continuum of decay rates. In *Elliptic and parabolic problems: A special tribute to the work of Haïm*

Brezis, Progress in Nonlinear Differential Equations and their Applications **63**. Birkhäuser Verlag, Basel, 2005, 135–138. (MR2176707) (doi: 10.1007/3-7643-7384-9_15)

[73] Cazenave T., Dickstein F. et Weissler F.B.: Multiscale asymptotic behavior of a solution of the heat equation in $\mathbb{R}^N$. In *Nonlinear Differential Equations: A Tribute to D. G. de Figueiredo*, Progress in Nonlinear Differential Equations and their Applications **66**. Birkhäuser Verlag, Basel, 2006, 185–194. (MR2187802) (doi: 10.1007/3-7643-7401-2_12)

[74] Cazenave T., Dickstein F. et Weissler F.B.: A solution of the constant coefficient heat equation on $\mathbb{R}$ with exceptional asymptotic behavior: an explicit construction. J. Math. Pures Appl. **85** (2006), no. 1, 119–150. (MR2200593) (doi: 10.1016/j.matpur.2005.08.006)

[75] Cazenave T. et Weissler F. B.: Spatial decay and time-asymptotic profiles for solutions of Schrödinger equations. Indiana Univ. Math. J. **55** (2006), no. 1, 75–118. (MR2207548) (doi: 10.1512/iumj.2006.55.2664)

[76] Cazenave T., Costa D., Manásevich R., Rabinowitz P., Ruf B. et Tomei C. (Eds): *Contributions to nonlinear analysis: A Tribute to D. G. de Figueiredo on the occasion of his 70th birthday*. Progress in Nonlinear Differential Equations and their Applications **66**. Birkhäuser Verlag, Basel, 2006. xii+518 pp. ISBN: 978-3-7643-7149-4; 3-7643-7149-8 (MR2179071) (doi: 10.1007/3-7643-7401-2)

[77] Cazenave T.: *An introduction to semilinear elliptic equations*. Editora do IM-UFRJ, Rio de Janeiro, 2006. ix+193 pp. ISBN: 85-87674-13-7. 2nd Ed. 2018, ISBN: 978-85-87674-31-9. (link: http://www.im.ufrj.br/index.php/pt/estrutura/e-books-im/1129-an-introduction-to-semilinear-elliptic-equations)

[78] Cazenave T., Dickstein F. et Weissler F.B.: Non-parabolic asymptotic limits of solutions of the heat equation on $\mathbb{R}^N$. J. Dynam. Differential Equations **19** (2007), no. 3, 789–818. (MR2350248) (doi: 10.1007/s10884-007-9076-z)

[79] Cazenave T., Dickstein F. et Weissler F.B.: An equation whose Fujita critical exponent is not given by scaling. Nonlinear Anal. **68** (2008), no. 4, 862–874. (MR2382302) (doi: 10.1016/j.na.2006.11.042)

[80] Cazenave T., Dickstein F. et Weissler F.B.: Global existence and blowup for sign-changing solutions of the nonlinear heat equation. J. Differential Equations **246** (2009), no. 7, 2669–2680. (MR2503017) (doi: 10.1016/j.jde.2009.01.035)

[81] Cazenave T., Dickstein F. et Weissler F.B.: Sign-changing stationary solutions and blowup for the nonlinear heat equation in a ball. Math. Ann. **344** (2009), no. 2, 431–449. (MR2495777) (doi: 10.1007/s00208-008-0312-6)

[82] Cazenave T., Dickstein F. et Weissler F.B.: On the structure of global solutions of the nonlinear heat equation in a ball. J. Math. Anal. Appl. **360** (2009), no. 2, 537–547. (MR2561252) (doi: 10.1016/j.jmaa.2009.06.076)

[83] Xie J., Zhang L. et Cazenave T.: A note on decay rates for Schrödinger's equation. Proc. Amer. Math. Soc. **138** (2010), no. 1, 199–207. (MR2550184) (doi: 10.1090/S0002-9939-09-10049-7)

[84] Cazenave T. et Scialom M.: A Schrödinger equation with time-oscillating nonlinearity. Rev. Mat. Complut. **23** (2010), no. 2, 321–339. (MR2659021) (doi: 10.1007/s13163-009-0018-7)

[85] Cazenave T., Dickstein F. et Weissler F.B.: Structural properties of the set of global solutions of the nonlinear heat equation, in *Current Advances in Nonlinear Analysis and Related Topics*, 13–23, GAKUTO Internat. Ser. Math. Sci. Appl., **32**, Gakkōtosho, Tokyo, 2010. (MR2668268)

[86] Cazenave T., Dickstein F. et Weissler F.B.: Spectral properties of stationary solutions of the nonlinear heat equation. Publ. Mat. **55** (2011), no. 1, 185–200. (MR2779581) (doi: 10.5565/publmat_55111_09)

[87] Cazenave T., Fang D. et Han Z.: Continuous dependence for NLS in fractional order spaces. Ann. Inst. H. Poincaré Anal. Non Linéaire **28** (2011), no. 1, 135–147. (MR2765515) (doi: 10.1016/j.anihpc.2010.11.005)

[88] Fang D., Xie J. et Cazenave T.: Multiscale asymptotic behavior of the Schrödinger equation. Funkcial. Ekvac. **54** (2011), no. 1, 69–94. (MR2829549) (doi: 10.1619/fesi.54.69)

[89] Fang D., Xie J. et Cazenave T.: Scattering for the focusing, energy-subcritical nonlinear Schrödinger equation. Sci. China Math. **54** (2011), no. 10, 2037–2062. (MR2838120) (doi: 10.1007/s11425-011-4283-9)

[90] Cazenave T., Dickstein F. et Weissler F.B.: Multi-scale multi-profile solutions of evolution equations. Discrete Contin. Dyn. Syst. Ser. S. **5** (2012), no. 3, 449–472. (MR2861819) (doi: 10.3934/dcdss.2012.5.449)

[91] Cazenave T., Escobedo M. et Zuazua E.: Blowup for a time-oscillating nonlinear heat equation. Acta Math. Univ. Comenian. (N.S.) **82** (2013), no. 1, 125–146. (MR3028155) (link: http://www.iam.fmph.uniba.sk/amuc/_vol-82/_no_1/_cazenave/cazenave.pdf)

[92] Cazenave T., Dickstein F. et Weissler F.B.: Finite-time blowup for a complex Ginzburg-Landau equation. SIAM J. Math. Anal. **45** (2013), no. 1, 244–266. (MR3032976) (doi: 10.1137/120878690)

[93] Cazenave T., Dickstein F. et Weissler F.B.: Standing waves of the complex Ginzburg-Landau equation. Nonlinear Anal. **103** (2014), 26–32. (MR3191892) (doi: 10.1016/j.na.2014.03.001)

[94] Cazenave T., Dias J.P. et Figueira M.: Finite-time blowup for a complex Ginzburg-Landau equation with linear driving. J. Evol. Equ. **14** (2014), no. 2, 403–415. (MR3207620) (doi: 10.1007/s00028-014-0220-z)

[95] N Carvalho A., Ruf B., Moreira dos Santos E., Gossez J.-P., M Soares S.H. et Cazenave T. (Eds): *Contributions to Nonlinear Elliptic Equations and Systems: A Tribute to Djairo Guedes de Figueiredo on the Occasion of his 80th Birthday*, Progress in Nonlinear Differential Equations and their Applications **86**. Birkhäuser Verlag, Basel, 2015. xiv+438 pp. ISBN: 978-3-319-19901-6; 3-319-19902-3 (doi: 10.1007/978-3-319-19902-3)

[96] Cazenave T., Correia S., Dickstein F. et Weissler F.B.: A Fujita-type blowup result and low energy scattering for a nonlinear Schrödinger equation. São Paulo J. Math. Sci. **9** (2015), no. 2, 146–161. (MR3457455) (doi: 10.1007/s40863-015-0020-6)

[97] Cazenave T., Fang D. et Han Z.: Local well-posedness for the H^2-critical nonlinear Schrödinger equation. Trans. Amer. Math. Soc. **368** (2016), no. 11, 7911–7934. (MR3546788) (doi: 10.1090/tran6683)

[98] Cazenave T. et Naumkin I.: Local existence, global existence, and scattering for the nonlinear Schrödinger equation. Commun. Contemp. Math. **19** (2017), no. 2, 1650038, 20 pp. (MR3611666) (doi: 10.1142/S0219199716500383)

[99] Cazenave T., Dickstein F. et Weissler F.B.: Non-regularity in Hölder and Sobolev spaces of solutions to the semilinear heat and Schrödinger equations. Nagoya Math. J. **226** (2017), 44–70. (MR3650971) (doi: 10.1017/nmj.2016.35)

[100] Cazenave T. et Naumkin I.: Modified scattering for the critical nonlinear Schrödinger equation. J. Funct. Anal. **274** (2018), no. 2, 402–432. (MR3724144) (doi: 10.1016/j.jfa.2017.10.022)

[101] Cazenave T. et Naumkin I.: Spatial behavior for NLS and applications to scattering. Séminaire Laurent Schwartz–Équations aux dérivées partielles et applications. Année 2017-2018, Exp. No. I, 11 pp., Ed. Éc. Polytech., Palaiseau, 2018. (MR3968019) (doi: 10.5802/slsedp.116)

[102] Cazenave T., Martel Y. et Zhao L.: Finite-time blowup for a Schrödinger equation with nonlinear source term. Discrete Contin. Dynam. Systems **39** (2019), no. 2, 1171–1183. (MR3918212) (doi: 10.3934/dcds.2019050)

[103] Cazenave T., Dickstein F., Naumkin I. et Weissler F.B.: Perturbations of self-similar solutions. Dyn. Partial Differ. Equ. **16** (2019), no. 2, 151–183. (MR3928036) (doi: 10.4310/DPDE.2019.v16.n2.a3)

[104] Cazenave T. et Snoussi S.: Finite-time blowup for some nonlinear complex Ginzburg-Landau equations. In *Partial Differential Equations Arising from Physics and Geometry*, London Math. Soc. Lecture Note Ser., **450**, Cambridge Univ. Press, Cambridge, 2019, 172–214. (MR3930848) (doi: 10.1017/9781108367639.004)

[105] Cazenave T., Martel Y. et Zhao L.: Solutions with prescribed local blow-up surface for the nonlinear wave equation. Adv. Nonlinear Stud. **19** (2019), no. 4, 639–675. (MR4026438) (doi: 10.1515/ans-2019-2059)

[106] Cazenave T., Martel Y. et Zhao L.: Solutions blowing up on any given compact set for the energy subcritical nonlinear wave equation. J. Differential Equations **268** (2020), no. 2, 680–706. (MR4021900) (doi: 10.1016/j.jde.2019.08.030)

[107] Cazenave T. et Han Z.: Asymptotic behavior for a Schrödinger equation with nonlinear subcritical dissipation. Discrete Contin. Dynam. Systems **40** (2020), no. 8, 4801–4819. (MR4112031) (doi: 10.3934/dcds.2020202)

[108] Cazenave T., Dickstein F., Naumkin I. et Weissler F.B.: Sign-changing self-similar solutions of the nonlinear heat equation with positive initial value. Amer. J. Math. **142** (2020), no. 5, 1439–1495. (MR4150650) (doi: 10.1353/ajm.2020.0037)

[109] Cazenave T., Dickstein F., Naumkin I. et Weissler F.B.: Sign-changing solutions of the nonlinear heat equation with persistent singularities. ESAIM Control Optim. Calc. Var. **26** (2020), Paper No. 126, 35 pp. (MR4188829) (doi: 10.1051/cocv/2020082)

[110] Cazenave T., Han Z. et Naumkin I.: Asymptotic behavior for a dissipative nonlinear Schrödinger equation. Nonlinear Anal. **205** (2021), Art. No. 112243. (MR4212087) (doi: 10.1016/j.na.2020.112243)

[111] Cazenave T. et Naumkin I.: Local smooth solutions of the nonlinear Klein-gordon equation. Discrete Contin. Dyn. Syst. Ser. S. **14** (2021), no. 5, 1649–1672. (MR4228955) (doi: 10.3934/dcdss.2020448)

[112] Cazenave T., Han Z. et Martel Y.: Blowup on an arbitrary compact set for a Schrödinger equation with nonlinear source term. J. Dynam. Differential Equations **33** (2021), no. 2, 941–960. (MR4248640) (doi: 10.1007/s10884-020-09841-8)