

PASCAL BÉGOUT

Last and first name	BÉGOUT Pascal Married, 3 children
Place and date of birthday	April 29 th , 1974 at Vincennes (France, 94)
Position	Assistant professor at the “ École d’Économie et de Sciences Sociales Quantitatives de Toulouse ” (GE-TSE) and researcher at the “ Institut de Mathématiques de Toulouse ” (IMT)
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1. CURRICULUM VITÆ AND POSITIONS

- 2024 – “Grand Établissement : École d’Économie et de Sciences Sociales Quantitatives de Toulouse” (GE-TSE)
- 2019, Dec. 2nd “Habilitation à diriger des recherches”. Title : “Étude qualitative de quelques équations et systèmes dynamiques non-linéaires amortis” ([pdf](#))
- 2009 – “Fondation Jean-Jacques Laffont” (FJL)
- 2008 – “Institut de Mathématiques de Toulouse” (IMT)
- 2008 – 2023 “Université Toulouse Capitole” (UTC)
- 2006 – 2008 Temporary researcher position at the “Laboratoire d’Analyse et Probabilités” of the “Université d’Évry Val d’Essonne”
- 2005 – 2006 Temporary researcher position at the “Laboratoire Jacques-Louis Lions” of the “Université Pierre et Marie Curie”
- 2003 – 2005 Postdoc researcher position at the “Departamento de Matemática Aplicada” of the “Universidad Complutense de Madrid”, with Jesús Ildefonso Díaz and at the “Departamento de Matemáticas” of the “Universidad Autónoma de Madrid”, with Enrique Zuazua
- 2001 – 2003 Temporary researcher position at the “Université Versailles Saint-Quentin-en-Yvelines” at the “laboratoire de Mathématiques Appliquées”
- 2001, Dec. 6th PhD in Sciences speciality “applied mathematics and application of mathematics” ([pdf](#))

2. PUBLICATIONS

- [1] Pascal Bégout and Jesús Ildefonso Díaz, *Strong stabilization of damped nonlinear Schrödinger equation with saturation on unbounded domains* (2024)
(doi: <https://doi.org/10.1016/j.jmaa.2024.128329> – [pdf](#))
- [2] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction for a critically damped Schrödinger equation with a sublinear nonlinearity*, *Adv. Differential Equations* **28**(3-4) (2023) 311–340 ([pdf](#))

- [3] Pascal Bégout, *The dual space of a complex Banach space restricted to the field of real numbers*, Adv. Math. Sci. Appl. **31**(2) (2022) 241–252 ([pdf](#))
- [4] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction for a class of damped Schrödinger equations with a singular saturated nonlinearity*, J. Differ. Equations **308** (2022) 252–285 ([pdf](#))
- [5] Pascal Bégout and Ian Schindler, *On a Stationary Schrödinger Equation with Periodic Magnetic Potential*, Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat., RACSAM **115** (72) (2021) 1–32 ([pdf](#))
- [6] Pascal Bégout, *Finite time extinction for a damped nonlinear Schrödinger equation in the whole space*, Electron. J. Differential Equations **2020**, no. 39, (2020) 1–18 ([pdf](#))
- [7] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction for the strongly damped nonlinear Schrödinger equation in bounded domains*, J. Differ. Equations **268**(7) (2020) 4029–4058 ([pdf](#))
- [8] Pascal Bégout, Jérôme Bolte and Mohamed Ali Jendoubi, *On damped second-order gradient systems*, J. Differ. Equations **259**(7) (2015) 3115–3143 ([pdf](#))
- [9] Pascal Bégout and Jesús Ildefonso Díaz, *Existence of weak solutions to some stationary Schrödinger equations with singular nonlinearity*, Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat., RACSAM **109** (1) (2015) 43–63 ([pdf](#))
- [10] Pascal Bégout and Jesús Ildefonso Díaz, *A sharper energy method for the localization of the support to some stationary Schrödinger equations with a singular nonlinearity*, Discrete Contin. Dyn. Syst. Series A **34**(9) (2014) 3371–3382 ([pdf](#))
- [11] Pascal Bégout and Jesús Ildefonso Díaz, *Self-similar solutions with compactly supported profile of some nonlinear Schrödinger equations*, Electron. J. Differential Equations **2014**, no. 90, (2014) 1–15 ([pdf](#))
- [12] Pascal Bégout and Jesús Ildefonso Díaz, *Localizing estimates of the support of solutions of some nonlinear Schrödinger equations – The stationary case*, Ann. Inst. H. Poincaré Anal. Non Linéaire **29**(1) (2012) 35–58 ([pdf](#))
- [13] Pascal Bégout and Fernando Soria, *A generalized interpolation inequality and its application to the stabilization of damped equations*, J. Differ. Equations **240**(2) (2007) 324–356 ([pdf](#))
- [14] Pascal Bégout and Ana Vargas, *Mass concentration for the L^2 -critical nonlinear Schrödinger equation*, Trans. Amer. Math. Soc. **359**(11) (2007) 5257–5282 ([pdf](#))
- [15] Pascal Bégout and Jesús Ildefonso Díaz, *On a nonlinear Schrödinger equation with a localizing effect*, C. R. Acad. Sci. Paris, Sér. I **342** (2006) 459–463 ([pdf](#))
- [16] Pascal Bégout, *Maximum decay rate for finite-energy solutions of nonlinear Schrödinger equations*, Differential Integral Equations **17**(11-12) (2004) 1411–1422 ([pdf](#))
- [17] Pascal Bégout, *Maximum decay rate for the nonlinear Schrödinger equation*, NoDEA Nonlinear Differential Equations Appl. **11**(4) (2004) 451–467 ([pdf](#))
- [18] Pascal Bégout, *Necessary conditions and sufficient conditions for global existence in the nonlinear Schrödinger equation*, Adv. Math. Sci. Appl. **12**(2) (2002) 817–827 ([pdf](#))
- [19] Pascal Bégout, *Convergence to scattering states in the nonlinear Schrödinger equation*, Commun. Contemp. Math. **3**(3) (2001) 403–418 ([pdf](#))

WORKS IN PROGRESS

- [a] Pascal Bégout, Jérôme Bolte, Thomas Mariotti and Francisco Silva, *Asymptotic directions of gradient flows for generic Morse functions*
- [b] Pascal Bégout and Jean-Pierre Neveu, *A resource-based model of motivational dynamics*

3. RESPONSABILITIES / SCIENTIFIC ACTIVITIES

- 2023 – Head of the IMT-TSE (The IMT-TSE is the part of the IMT which is attached to the GE-TSE)
- 2023 – Member of the council of the GE-TSE
- 2020 – Member of the council of the IMT
- 2019 Co-organizer of the conference in honor of Peter Takáč's birthday, 6–8 June ([link](#))
- 2019 – 2022 In charge of the seminar “Analyse–EDP” of the “Université Toulouse Capitole” (UTC)
- 2017 – Member of the council of the department of mathematics of the GE-TSE
- 2016 Lectures in mathematics at the “Institut National Polytechnique de Toulouse” (INPT)
- 2015 Member of the CNU (“Conseil National des Universités”) – 26th section
- 2011 – 2013 In charge of the seminar M@thématiques de la Décision (M@D) of TSE
- 2010 – 2011 Member of the committee selection in applied mathematics section (n°26) of the UTC
- 2009 Lectures in mathematics at the INPT
- 2009 – Member of the council of the library of the IMT
- 2008 – 2009 In charge of the seminar “Analyse–EDP” of the UTC
- 2006 – 2008 In charge of the “Séminaire d'Analyse” of the department of mathematics of the “Université d'Évry Val d'Essonne”
- 2006 – Reviewer for Mathematical Reviews
- 2003 – Referee for mathematics journals

- List of the Mathematical Reviews (70 reviews) :

- *Acta Math. Appl. Sin. Engl. Ser.*
- *Appl. Math. Research eXpress*
- *Comm. Math. Phys.*
- *Forum Math.*
- *International Congress of Mathematicians.*
- *Eur. Math. Soc., Zürich*
- *Adv. Differential Equations*
- *Astérisque*
- *Commun. Pure Appl. Anal.*
- *Hokkaido Math. J.*
- *Internat. Math. Res. Notices*
- *J. Differential Equations*

→ <i>J. Math. Anal. Appl.</i>	→ <i>Math. aspects of nonlinear dispersive</i>
→ <i>Math. Methods Appl. Sci.</i>	→ <i>Proc. Roy. Soc. Edinburgh Sect. A</i>
→ <i>equations, Ann. of Math. Stud.</i>	→ <i>Séminaire Bourbaki</i>
→ <i>SIAM J. Math. Anal.</i>	→ <i>Trans. Amer. Math. Soc.</i>
→ <i>Nonlinearity</i>	→ <i>Math. Ann.</i>
→ <i>Annali di Matematica</i>	→ <i>Amer. Math. Soc. Transl. Ser.</i>
→ <i>Appl. Math. Comput.</i>	→ <i>Differential Integral Equations</i>
→ <i>J. Funct. Anal.</i>	→ <i>Analysis and PDE</i>
→ <i>Math. Res. Lett.</i>	→ <i>Rev. Mat. Iberoam.</i>
→ <i>Comm. Partial Differential Equations</i>	→ <i>Asymptot. Anal.</i>
→ <i>Ann. Inst. H. Poincaré Anal. Non Linéaire</i>	→ <i>Ann. Henri Poincaré</i>
→ <i>Proc. Amer. Math. Soc.</i>	→ <i>Adv. Math.</i>
→ <i>Discrete Contin. Dyn. Syst. Series A</i>	→ <i>Ann. Scient. Éc. Norm. Sup.</i>
→ <i>NoDEA Nonlinear Differential Equations</i>	→ <i>Proc. Amer. Math. Soc. Ser. B</i>
→ <i>Appl.</i>	→ <i>Proc. Amer. Math. Soc.</i>
→ <i>Electron. J. Qual. Theory Differ. Equ.</i>	→ <i>J. Elliptic Parabol. Equ.</i>

• List of the refereed journals (35) : *AIMS Mathematics* (2023, April), *Bulletin des sciences mathématiques* (2023, March), *AIMS Mathematics* (2022, February & September), *International Conference on Physics, Mathematics and Statistics* (2022, May), *Mathematical Programming* (2021, March), *Complex Variables and Elliptic Equations* (2020, December), *Nonlinear Analysis* (2020, November), *Journal of Physics A : Mathematical and Theoretical* (2020, March), *Journal of Mathematical Analysis* (2019, March), *Revista Matemática Complutense* (2018, February), *Electronic Journal of Differential Equations* (2018, January & 2017, November), *Bulletin of the Korean Mathematical Society* (2015, July), *Abstract and Applied Analysis* (2015, May), *Proceedings of the Royal Society of Edinburgh* (2014, November), *Nonlinear Analysis Series A : Theory, Methods & Applications* (2014, November), *Electronic Journal of Differential Equations* (2014, November & 2013, January), *Annales Academiæ Scientiarum Fennicæ. Mathematica* (2014, February), *Reports on Mathematical Physics* (2012, December ; 2011, September), *Chaos, Solitons & Fractals* (2012, September), *Applied Mathematics Letters* (2012, May), *Journal of Physics A : Mathematical and Theoretical* (2012, January), *Archiv der Mathematik* (2011, November), *Applicable Analysis* (2011, August), *Mathematics and Computers in Simulation* (2011, May), *Nonlinearity* (2011, March), *The Royal Society of Edinburgh Proceedings Sect. A* (2009, November), *Journal of Hyperbolic Differential Equations* (2009, July), *Journal of Differential Equations* (2008, March), *Rocky Mountain Journal of Mathe-*

matics (2006, October), *Journal of Mathematical Analysis and Applications* (2005, March) et *Discrete and Continuous Dynamical Systems* (2003, April).

4. TEACHING

As a teacher-researcher, my annual teaching load is 192 hours.

2023 – 2024	256,50 H
2022 – 2023	256,50 H
2021 – 2022	256,50 H
2020 – 2021	256,50 H
2019 – 2020	247,50 H
2018 – 2019	112,50 H (teaching load reduction of 50% : CRCT)
2017 – 2018	220,50 H
2016 – 2017	274,50 H
2015 – 2016	249,75 H (including 89,75 H at the INPT)
2014 – 2015	192 H
2013 – 2014	96 H (teaching load reduction of 50% : CNRS delegation)

5. TALKS – INVITATIONS

- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2024, from March 16th to 23th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2023, from December 3rd to 7th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2023, from June 5th to 10th
- Invited by Luis Manuel Blanco Donoso of the “Facultad de Psicología” of the “Universidad Autónoma de Madrid ” – 2022, from June 20th to 24th
- Invited by Luis Manuel Blanco Donoso of the “Facultad de Psicología” of the “Universidad Autónoma de Madrid ” – 2022, from April 19th to 23th
- Seminar “Modélisation, Optimisation, Dynamique” of the “université de Limoges” – 2022, March 25th
- Conference “Qualitative properties of nonlinear PDEs – An international conference on occasion of J. I. Díaz 70th birthday” – 2021, July 13th, 14th & 15th

- Invited to the “Xlim” of the “université de Limoges” 2019, from May 20th to 24th
- Seminar “Modélisation, Optimisation, Dynamique” of the “université de Limoges” – 2019, February 22th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2018, from November 25th to 30th
- Invited speaker to the “Journées Mathématiques Appliquées Bordeaux-Montpellier-Toulouse” – 2018, November 12th & 13th
- Conference “Analysis of PDEs : unique continuation, stabilization, control and dispersive properties” – 2018, November from 5th to 9th
- Seminar “Analyse–EDP” of UTC – 2017, January 20th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2015, from February 8th to 13th
- Invited speaker to the “10th AIMS Conference on Dynamical Systems, Differential Equations and Applications” – 2014, July from 7th to 11th
- Seminar “Analyse–EDP” of UTC – 2014, February 7th
- Invited at the “université d’Évry Val d’Essonne” – 2013, from June 19th to 21th
- Seminar “Analyse Appliquée A³” at the “LAMFA” of the “Université de Picardie-Jules Verne” – 2013, January 7th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2012, from November 25th to 30th
- Seminar “Analyse Appliquée” at the “LATP” of the “Université de Marseille” – 2012, November 20th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2012, from June 24th to 29th
- Invited at the “université d’Évry Val d’Essonne” – 2012, from May 22th to 31st
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2011, from November 20th to 25th
- Seminar “Analyse du Laboratoire de Mathématiques et Physique Théorique” of the “Université de Tours” – 2011, October 13th
- Invited at the “université d’Évry Val d’Essonne” – 2011, from September 22th to 25th
- Seminar M@D of TSE – 2010, December 16th

- Invited at the “Université d'Évry Val d'Essonne” – 2010, from November 1st to 7th
- “Journées Équations aux Dérivées Partielles Non-Linéaires” organized at the UTC – 2010, May 6th & 7th
- Seminar “Analyse et Applications” of the “Université d'Évry Val d'Essonne” – 2010, April 1st
- Invited by J.I. Díaz at the “Universidad Complutense de Madrid” – 2009, from December 8th to 15th
- Seminar “Analyse–EDP” of the UTC – 2008, November 21st
- “Seminario del Instituto de Matemática Interdisciplinar” of the “Universidad Complutense de Madrid” – 2007, October 31st
- Seminar “Analyse” of the “Université d'Évry Val d'Essonne” – 2007, March 29th
- Seminar “Analyse-Probabilités” of the “Université de Paris-Dauphine” – 2007, February 20th
- Thematic program : Dispersive nonlinear longwave PDE's and applications in physics, Wolfgang Pauli Institute, Vienne – 2007, from February 8th to 10th
- Seminar “Analyse Numérique et Équations aux Dérivées Partielles” of the “Université Paris-Sud” – 2007, February 1st
- Seminar “Équations aux Dérivées Partielles” of the “Université de Besançon” – 2006, October 19th
- Seminar “Mathématiques Appliquées” of the “Université de Bordeaux” – 2005, October 27th
- Seminar “Matemática Aplicada” of the “Universidad Complutense de Madrid” – 2004, April 28th
- Seminar “Modélisation, Analyse non-linéaire et Optimisation” of the “Université de Perpignan” – 2004, April 1st
- Seminar “EDPs y Matemática Aplicada” of the “Universidad Autónoma de Madrid” – 2003, November 21st