

PASCAL BÉGOUT

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| Last and first name | BÉGOUT Pascal |
| | Maried, 3 children |
| Place and date of birthday | April 29 th , 1974 at Vincennes (France, 94) |
| Position | Associate professor (“maître de conférences, HDR”) 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. POSITIONS AND AWARD

- 2025 – 2028 Outstanding Vitæ Awards (OVA) awarded by the “Fondation Jean-Jacques Laffont” (FJL)
- 2024 – 2027 Individual merit bonus (RIPEC C3) awarded by the GE-TSE
- 2024 – Associate professor at the “Grand Établissement : École d’Économie et de Sciences Sociales Quantitatives de Toulouse” (GE-TSE)
- 2019, Dec. 2nd “Habilitation à diriger des recherches”. Title : Qualitative study of some damped nonlinear equations and dynamic systems ([pdf](#))
- 2009 – “Fondation Jean-Jacques Laffont”
- 2008 – “Institut de Mathématiques de Toulouse” (IMT)
- 2008 – 2023 Assistant professor at the “Université Toulouse Capitole” (UTC)
- 2006 – 2008 Temporary researcher at the “Laboratoire d’Analyse et Probabilités” of the “Université d’Évry Val d’Essonne”
- 2005 – 2006 Temporary researcher at the “Laboratoire Jacques-Louis Lions” of the “Université Pierre et Marie Curie”
- 2003 – 2005 Postdoc researcher 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 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 Jean-Pierre Neveu, *Measuring motivational patterns : a formal approach of conservation of resources theory*, *Nonlinear Dynamics, Psychology, and Life Sciences*, **29**(3) (2025) 431-451 ([pdf](#))

- [2] Pascal Bégout et Jesús Ildefonso Díaz, *Solutions with expanding compact support of saturated Schrödinger equations : self-similar solutions*, Electronic J. Differential Equations **2025**, no. 53, (2025) 1–15 ([pdf](#))
- [3] Pascal Bégout and Jesús Ildefonso Díaz, *On the compactness of the support of solitary waves of the complex saturated nonlinear Schrödinger equation and related problems*, Physica D. Nonlinear Phenomena, **472** (2025) Paper No. 134516 ([pdf](#))
- [4] Pascal Bégout and Jesús Ildefonso Díaz, *Strong stabilization of damped nonlinear Schrödinger equation with saturation on unbounded domains*, Journal of Mathematical Analysis and Applications, **538**(1) (2024) Paper No. 128329 ([pdf](#))
- [5] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction for a critically damped Schrödinger equation with a sublinear nonlinearity*, Advances in Differential Equations **28**(3-4) (2023) 311–340 ([pdf](#))
- [6] Pascal Bégout, *The dual space of a complex Banach space restricted to the field of real numbers*, Advances in Mathematical Sciences and Applications **31**(2) (2022) 241–252 ([pdf](#))
- [7] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction for a class of damped Schrödinger equations with a singular saturated nonlinearity*, Journal of Differential Equations **308** (2022) 252–285 ([pdf](#))
- [8] Pascal Bégout and Ian Schindler, *On a Stationary Schrödinger Equation with Periodic Magnetic Potential*, Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matematicas. RACSAM **115** (72) (2021) 1–32 ([pdf](#))
- [9] Pascal Bégout, *Finite time extinction for a damped nonlinear Schrödinger equation in the whole space*, Electronic Journal of Differential Equations **2020**, no. 39, (2020) 1–18 ([pdf](#))
- [10] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction for the strongly damped nonlinear Schrödinger equation in bounded domains*, Journal of Differential Equations **268**(7) (2020) 4029–4058 ([pdf](#))
- [11] Pascal Bégout, Jérôme Bolte and Mohamed Ali Jendoubi, *On damped second-order gradient systems*, Journal of Differential Equations **259**(7) (2015) 3115–3143 ([pdf](#))
- [12] Pascal Bégout and Jesús Ildefonso Díaz, *Existence of weak solutions to some stationary Schrödinger equations with singular nonlinearity*, Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matematicas. RACSAM **109** (1) (2015) 43–63 ([pdf](#))
- [13] 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 and Continuous Dynamical Systems. Series A **34**(9) (2014) 3371–3382 ([pdf](#))
- [14] Pascal Bégout and Jesús Ildefonso Díaz, *Self-similar solutions with compactly supported profile of some nonlinear Schrödinger equations*, Electronic Journal of Differential Equations **2014**, no. 90, (2014) 1–15 ([pdf](#))
- [15] Pascal Bégout and Jesús Ildefonso Díaz, *Localizing estimates of the support of solutions of some nonlinear Schrödinger equations – The stationary case*, Annales de l’Institut Henri Poincaré. Analyse Non Linéaire **29**(1) (2012) 35–58 ([pdf](#))
- [16] Pascal Bégout and Ana Vargas, *Mass concentration for the L^2 -critical nonlinear Schrödinger equation*, Transactions of the American Mathematical Society **359**(11) (2007) 5257–5282 ([pdf](#))

- [17] Pascal Bégout and Fernando Soria, *A generalized interpolation inequality and its application to the stabilization of damped equations*, Journal of Differential Equations **240**(2) (2007) 324–356 ([pdf](#))
- [18] Pascal Bégout and Jesús Ildefonso Díaz, *On a nonlinear Schrödinger equation with a localizing effect*, Comptes Rendus Mathématique de l'Académie des Sciences de Paris **342** (2006) 459–463 ([pdf](#))
- [19] Pascal Bégout, *Maximum decay rate for finite-energy solutions of nonlinear Schrödinger equations*, Differential and Integral Equations. An International Journal for Theory & Applications **17**(11-12) (2004) 1411–1422 ([pdf](#))
- [20] Pascal Bégout, *Maximum decay rate for the nonlinear Schrödinger equation*, Nonlinear Differential Equations and Applications **11**(4) (2004) 451–467 ([pdf](#))
- [21] Pascal Bégout, *Necessary conditions and sufficient conditions for global existence in the nonlinear Schrödinger equation*, Advances in Mathematical Sciences and Applications **12**(2) (2002) 817–827 ([pdf](#))
- [22] Pascal Bégout, *Convergence to scattering states in the nonlinear Schrödinger equation*, Communications in Contemporary Mathematics **3**(3) (2001) 403–418 ([pdf](#))

WORK IN PROGRESS / SUBMITTED

- [a] Pascal Bégout and Jean-Pierre Neveu, *The value of incentives and motivation dynamics*
- [b] Pascal Bégout, Jérôme Bolte, Thomas Mariotti and Francisco Silva, *Asymptotic directions of gradient flows for generic Morse functions*
- [c] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction of damped nonlinear Ginzburg-Landau equation with saturation on general domains*

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 research council of the GE-TSE
- 2023 – Member of the research council of the “Université Toulouse Capitole” (UTC)
- 2023 – Guest Editor for the open access journal Axioms (ISSN 2075-1680) for a special issue ([link](#))
- 2020 – Member of the laboratory council of the “Institut de Mathématiques de Toulouse” (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”
- 2017 – 2024 – Member of the council of the department of mathematics of the GE-TSE
- 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 selection committee in applied mathematics section of the UTC

- 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 (list below)
- 2003 – Referee for mathematics journals (list below)

• List of the Mathematical Reviews (71 reviews) :

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| → <i>Acta Math. Appl. Sin. Engl. Ser.</i> | → <i>Adv. Differential Equations</i> |
| → <i>Appl. Math. Research eXpress</i> | → <i>Astérisque</i> |
| → <i>Comm. Math. Phys.</i> | → <i>Commun. Pure Appl. Anal.</i> |
| → <i>Forum Math.</i> | → <i>Hokkaido Math. J.</i> |
| → <i>International Congress of Mathematicians.</i> | → <i>Internat. Math. Res. Notices</i> |
| <i>Eur. Math. Soc., Zürich</i> | → <i>J. Differential Equations</i> |
| → <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> |
| → <i>Ann. Henri Poincaré</i> | |

- List of the refereed journals (36) : *Differential Equations & Applications* (2024, June), *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 Mathematics* (2006, October), *Journal of Mathematical Analysis and Applications* (2005, March) et *Discrete and Continuous Dynamical Systems* (2003, April).

4. TEACHING

My annual teaching load is 192 hours.

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| 2024 – 2025 | 256,50 H |
| 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” – 2025, June from 1st to 8th
- Seminar “Modélisation, Analyse et Calcul” of the “Université Paul Sabatier” at Toulouse – 2025, May 06th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2025, March from 9th to 16th
- “International Workshop on Nonlinear problems in Partial Differential Equations. Applications and Methods” at the “Universidad Politécnica de Madrid” – 2025, February 17th & 18th
- Invited by J.-P. Neveu at the “Université de Pau et des Pays de l’Adour” – 2024, December from 1st to 6th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2024, June from 22th to 29th
- Invited by J.-P. Neveu at the “Université de Pau et des Pays de l’Adour” – 2024, May from 28th to 31st
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2024, March from 16th to 23th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2023, December from 3rd to 7th
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2023, June from 5th to 10th
- Invited by Luis Manuel Blanco Donoso of the “Facultad de Psicología” of the “Universidad Autónoma de Madrid ” – 2022, June from 20th to 24th
- Invited by Luis Manuel Blanco Donoso of the “Facultad de Psicología” of the “Universidad Autónoma de Madrid ” – 2022, April from 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” at the “Universidad Complutense de Madrid” – 2021, July 13th, 14th & 15th
- Invited to the “Xlim” of the “Université de Limoges” 2019, May from 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, November from 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, February from 8th to 13th
- Invited speaker to the “10th AIMS Conference on Dynamical Systems, Differential Equations and Applications” at the “Universidad Autónoma de Madrid” – 2014, July from 7th to 11th
- Seminar “Analyse–EDP” of UTC – 2014, February 7th
- Invited at the “Université d’Évry Val d’Essonne” – 2013, June from 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, November from 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, June from 24th to 29th
- Invited at the “Université d’Évry Val d’Essonne” – 2012, May from 22th to 31st
- Invited by J. I. Díaz at the “Universidad Complutense de Madrid” – 2011, November from 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, September from 22th to 25th
- Seminar M@D of TSE – 2010, December 16th
- Invited at the “Université d’Évry Val d’Essonne” – 2010, November from 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, December from 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, February from 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