

# PASCAL BÉGOUT

Last and first name	BÉGOUT Pascal
	Maried, 3 children
Place and date of birthday	April 29 <sup>th</sup> , 1974 at Vincennes (France, 94)
Position	Assistant professor at “ <a href="#">TSE Grand Établissement</a> ” (TSE GE), and researcher at <a href="#">Toulouse School of Economics</a> (TSE) and “ <a href="#">Institut de Mathématiques de Toulouse</a> ” (IMT)
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## 1. CURRICULUM VITÆ AND POSITIONS

- 2019            “Habilitation à diriger des recherches”. Title : “Étude qualitative de quelques équations et systèmes dynamiques non-linéaires amortis” ([pdf](#))
- 2008 –        Researcher at TSE and the “Institut de Mathématiques de Toulouse” (IMT)  
and assistant professor at the “TSE GE”
- 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. 6<sup>th</sup>   PhD in Sciences speciality “applied mathematics and application of mathematics” ([pdf](#))

## 2. PUBLICATIONS

- [1] Pascal Bégout, *Finite time extinction for a critically damped Schrödinger equation with a sublinear nonlinearity*, Adv. Differential Equations **28**(3-4) (2023) 311–340 ([pdf](#))
- [2] 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](#))
- [3] 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](#))

- [4] 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](#))
- [5] 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](#))
- [6] 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](#))
- [7] Pascal Bégout, Jérôme Bolte and Mohamed Ali Jendoubi, *On damped second-order gradient systems*, J. Differ. Equations **259**(7) (2015) 3115–3143 ([pdf](#))
- [8] 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](#))
- [9] 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](#))
- [10] 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](#))
- [11] 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](#))
- [12] 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](#))
- [13] 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](#))
- [14] 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](#))
- [15] Pascal Bégout, *Maximum decay rate for finite-energy solutions of nonlinear Schrödinger equations*, Differential Integral Equations 17(11-12) (2004) 1411–1422 ([pdf](#))
- [16] Pascal Bégout, *Maximum decay rate for the nonlinear Schrödinger equation*, NoDEA Nonlinear Differential Equations Appl. **11**(4) (2004) 451–467 ([pdf](#))
- [17] 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](#))
- [18] Pascal Bégout, *Convergence to scattering states in the nonlinear Schrödinger equation*, Commun. Contemp. Math. 3(3) (2001) 403–418 ([pdf](#))

- [a] Pascal Bégout, Jérôme Bolte, Thomas Mariotti and Francisco Silva, *Asymptotic directions of gradient flows for generic Morse functions*
- [b] Pascal Bégout and Jesús Ildefonso Díaz, *Finite time extinction for a damped Schrödinger equation with a saturated nonlinearity in unbounded domain*
- [c] Pascal Bégout and Jean-Pierre Neveu, *Lifting the hood : A resource-based model of motivational dynamics*

### 3. SCIENTIFIC ACTIVITIES

- 2020 – Member of the council of the IMT of the “Université Paul Sabatier”
- 2019 Co-organizer of the conference in honor of Peter Takáč's birthday, 6–8 June ([link](#))
- 2019 – 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 UTC
- 2016 Lectures in mathematics at the “Institut National Polytechnique de Toulouse” (INPT)
- 2015 Member of the CNU (“Conseil National des Universités”) – 26<sup>th</sup> 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 (68 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 Appl.</i>	→ <i>Proc. Amer. Math. Soc. Ser. B</i>
	→ <i>Proc. Amer. Math. Soc.</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 Mathematics* (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.

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 Luis Manuel Blanco Donoso of the “Facultad de Psicología” of the “Universidad Autónoma de Madrid ” – 2022, from March 19<sup>th</sup> to 23<sup>th</sup>
- Seminar “Modélisation, Optimisation, Dynamique” of the “université de Limoges” – 2022, March 25<sup>th</sup>
- Conference “Qualitative properties of nonlinear PDEs – An international conference on occasion of J. I. Díaz 70<sup>th</sup> birthday” – 2021, July 13<sup>th</sup>, 14<sup>th</sup> &15<sup>th</sup>
- Invited to the “Xlim” of the “université de Limoges” 2019, from May 20<sup>th</sup> to 24<sup>th</sup>
- Seminar “Modélisation, Optimisation, Dynamique” of the “université de Limoges” – 2019, February 22<sup>th</sup>
- Invited speaker to the “Journées Mathématiques Appliquées Bordeaux-Montpellier-Toulouse” – 2018, November 12<sup>th</sup> & 13<sup>th</sup>
- Seminar “Analyse–EDP” of UTC – 2017, January 20<sup>th</sup>
- Invited at the “Universidad Complutense de Madrid” (one week : 2018, 2015, 2013, 2012, 2011)
- Invited at the “université d’Évry Val d’Essonne” (one week : 2013, 2012, 2011, 2010)
- Invited speaker to the “10th AIMS Conference on Dynamical Systems, Differential Equations and Applications” – 2014, July from 07<sup>th</sup> to 11<sup>th</sup>

- Seminar “Analyse–EDP” of UTC – 2014, February 7<sup>th</sup>
- Seminar “Analyse Appliquée A<sup>3</sup>” at the “LAMFA” of the “Université de Picardie-Jules Verne” – 2013, January 07<sup>th</sup>
- Seminar “Analyse Appliquée” at the “LATP” of the “Université de Marseille” – 2012, November 20<sup>th</sup>
- Seminar “Analyse du Laboratoire de Mathématiques et Physique Théorique” of the “Université de Tours” – 2011, October 13<sup>th</sup>
- Seminar M@D of TSE – 2010, December 16<sup>th</sup>
- “Journées Équations aux Dérivées Partielles Non-Linéaires” organized at the UTC – 2010, 6<sup>th</sup> & 7<sup>th</sup>
- Seminar “Analyse et Applications” of the “Université d’Évry Val d’Essonne” – 2010, April 1<sup>st</sup>
- Seminar “Analyse–EDP” of the UTC – 2008, November 21<sup>th</sup>
- “Seminario del Instituto de Matemática Interdisciplinar” of the “Universidad Complutense de Madrid” – 2007, October 31<sup>th</sup>
- Seminar “Analyse” of the “Université d’Évry Val d’Essonne” – 2007, March 29<sup>th</sup>
- Seminar “Analyse-Probabilités” of the “Université de Paris-Dauphine” – 2007, February 20<sup>th</sup>
- Thematic program : Dispersive nonlinear longwave PDE’s and applications in physics, Wolfgang Pauli Institute, Vienne – 2007, from February 8<sup>th</sup> to 10<sup>th</sup>
- Seminar “Analyse Numérique et Équations aux Dérivées Partielles” of the “Université Paris-Sud” – 2007, February 1<sup>st</sup>
- Seminar “Équations aux Dérivées Partielles” of the “Université de Besançon” – 2006, October 19<sup>th</sup>
- Seminar “Mathématiques Appliquées” of the “Université de Bordeaux” – 2005, October 27<sup>th</sup>
- Seminar “Matemática Aplicada” of the “Universidad Complutense de Madrid” – 2004, April 28<sup>th</sup>
- Seminar “Modélisation, Analyse non-linéaire et Optimisation” of the “Université de Perpignan” – 2004, April 1<sup>st</sup>
- Seminar “EDPs y Matemática Aplicada” of the “Universidad Autónoma de Madrid” – 2003, November 21<sup>th</sup>