Anthony Poëls

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▬▬▬ Education and qualification

2022– **Maître de conférence**, *University Claude-Bernard Lyon 1*, Villeurbanne (France), member of the team Combinatorics and Number Theory

2021–2022 **Postdoctorat (JSPS/CNRS)**, *Nihon University*, Tokyo (Japan), Supervisor: Noriko Hirata-Kohno

2020–2021 **Postdoc position**, *University of Ottawa*, Ottawa (Canada), Supervisor: Damien Roy

2018–2020 **Postdoc position**, *University of Ottawa*, Ottawa (Canada), Supervisors: Daniel Fiorilli and Damien Roy

2015–2018 **PhD Student in Mathematics**, *Paris-Sud University*, Orsay, Supervisor: Stéphane Fischler
Title: Applications of parametric geometry of numbers to diophantine approximation. Defense date: 18th May 2018

2014–2015 **Master 2 Research on Fundamental Mathematics (Master's degree)**, *Faculty of the Institut de Mathématiques de Jussieu*, Paris, *magna cum laude*
Most areas of pure mathematics are covered

2013 **Agrégation of Mathematics**, *Ecole Normale Supérieure*, Lyon, *Rank: 4th*
The *agrégation* is a competitive civil service examination granting the highest teaching position in the French academic public system.

2011-2014 **Master in Mathematics (Master's degree)**, *Ecole Normale Supérieure*, Lyon, *magna cum laude*
I also passed the *agrégation* of Mathematics, see above.

2011 **Bachelor's degree in Mathematics, equivalent to a Bachelor of Science Degree in Mathematics**, *Ecole Normale Supérieure (university-level institution training teachers and researchers, entrance to which is based on a competitive exam)*, Lyon, *magna cum laude*

2010 **Competitive entrance exam's result**, Paris
Admitted to the ENSL (Ecole Normale Supérieure de Lyon). Also admitted to the Ecole Polytechnique

2008–2010 **Classe préparatoire in Mathematics, Physics and Computer Science**, *Lycée Louis Le Grand*, Paris
Post-secondary education in preparatory classes in science for competitive entrance exam to ENS and engineering schools.

2008 **French Baccalaureate in Science**, *Lycée Augustin Thierry*, Blois, *With highest honours*
Majors: Maths, Physics, Chemistry

▬▬▬ Internships

2014–2015	**Internship (second year of Master)**, *On Parametric geometry of numbers*, Orsay, Supervisor: Stéphane Fischler
2011–2012	**Internship (first year of Master)**, *Subject: On Hardy's theorem (analytic number theory)*, Grenoble, Supervisor: Tanguy Rivoal
2010–2011	**Internship (for Bachelor's degree)**, *On irrationality of $\zeta(3)$*, Lyon, Supervisor: Frédéric Jouhet
	Personal contribution: extension of Poincaré's theorem (on linear recurrences with non constant coefficients)
2009–2010	**Personal project**, *Personal project on the localisation of the zeros of the Riemann Zeta function*, Paris

Administrative tasks

7 June 2021	**Member of the jury of Master 2 thesis (Fundamental Mathematics)**, Paris, France Student: Gaétan Guillot (Sorbonne University). Title of the master thesis: *Approximation rationnelle de sous-espaces vectoriels*.
2021–2022	**DARF Seminar**, *Nihon University*, Tokyo, Japan
	Organizer of the online seminar on Diophantine Analysis and Related Fields (https://www.math.tsukuba.ac.jp/~kanekoha/darf_seminar_en.html).

Teaching

2020–2021	**Teaching assistant**, *University of Ottawa*, Ottawa, Canada
	Introduction to number theory (MAT3166)
2018–2020	**Professor**, *University of Ottawa*, Ottawa, Canada
	Vectors and Calculus (MAT1739)
2017–2018	**Teaching assistant**, *IUT*, Orsay, FRANCE
	Program: probability and statistics (56 hours), discrete mathematics (8h) (see 2015-2016 for more details)
2016–2017	**Teaching assistant**, *IUT*, Orsay, FRANCE
	I designed my own specific courses and was responsible for the complementary tutoring sessions (Program: probability and statistics)
2015–2016	**Teaching assistant**, *IUT*, Orsay, FRANCE
	Program: probability and statistics (56 hours) – discrete mathematics (8h): introduction to set theory, injections, bijections and surjections, binary relations, recurrences and matrix calculus
2011–2012	**Colles**, *Lycée du Parc*, Lyon, FRANCE
	I was a maths "colleur" (a kind of tutor/examinator) for a year in "Classes préparatoires" with two hours per week.

Publications

A. Poëls and D. Roy. Parametric geometry of numbers over a number field and extension of scalars. *arXiv:2202.08642 [math.NT]*, 2022 (submitted)

M. Kawashima and A. Poëls . Padé approximation for a class of hypergeometric functions and parametric geometry of numbers. *arXiv:2202.10782 [math.NT]*, 2022 (accepted by *J. Number Theory*)

A. Poëls and D. Roy. Simultaneous rational approximation to successive powers of a real number. *arXiv:2109.14141 [math.NT]*, 2022 (accepted by *Trans. Amer. Math. Soc.*)

A. Poëls. Exponents of Diophantine approximation in dimension two for a general class of numbers. *arXiv:2107.05618 [math.NT]*, 2021 (accepted by *Mosc. J. Comb. Number Theory*)

A. Poëls and D. Roy. Rational approximation to real points on quadratic hypersufarces. *J. Lond. Math. Soc.*, 103(2):672–696, 2021.

A. Poëls. A class of maximally singular sets for rational approximation. *Int. J. Number Theory*, 16(09):2005–2012, 2020.

N. Van Nguyen and Poëls and D. Roy. A transference principle for simultaneous rational approximation. *J. Théor. Nombres Bordeaux*, 32(2):387–402, 2020.

A. Poëls. A new exponent of simultaneous rational approximation. *Acta Arith.*, 192(2):165–179, 2020.

A. Poëls. Exponents of Diophantine approximation in dimension 2 for numbers of Sturmian type. *Math. Z.*, 294(3):951–993, 2020.

A. Poëls. The complex case of Schmidt's going-down Theorem. *Monatsh. Math.*, 184(4):649–666, 2017.

Foreign languages

French	Mother tongue
English	Good command of scientific english
German	Basics communication skills

Programming languages

LATEX	Proficient (LaTeX is used for writing scientific documents)
Maple	Proficient
PHP	Proficient
HTML&CSS	Proficient
Javascript (JQuery)	Reasonable working knowledge

Skills and interests

Driving license	Cars (2008) and motorbikes (2017)
Savate	(French boxing) Regular practice since 2005
Music	Regular guitar player since 2002
Dance	Regular Argentine Tango dancer since 2012

Talks

19 August 2022	**28th Nordic Congress of Mathematicians**, *Simultaneous rational approximation to successive powers of a real number*, (Aalto University, Finland (online))
21 April 2022	**Oberwolfach Workshop 2216 - Diophantische Approximationen**, *Simultaneous rational approximation to successive powers of a real number*, (Oberwolfach, Germany)

29 March 2022	**Combinatorics and number theory seminar - University Lyon 1**, *Géométrie paramétrique des nombres sur un corps de nombres*, (Lyon, France)
2 February 2022	**Days of Transcendence (in occasion of Professor Yuri Nesterenko's 75th birthday)**, *Simultaneous rational approximation to successive powers of a real number*, (Moscow, online)
7 January 2022	**Friday Tea Time Zoom Seminar**, *From a false conjecture to Roy's Extremal Numbers* , (Japan, online), https://sites.google.com/view/fridayteatime/
8 Dec. 2021	**Nihon University number theory seminar**, *On a variant of Wirsing's Problem*, (Tokyo, Japan)
8 October 2021	**DAHD seminar**, *Simultaneous rational approximation to successive powers of a real number*, (York, UK, online)
9 June 2021	**CMS $75+1$ Anniversary summer meeting**, *Approximation diophantienne et hypersurfaces quadratiques*, (Ottawa, Canada, online)
20 February 2021	**DARF seminar (Tokyo)**, *On Sturmian numbers*, (Tokyo, via Zoom)
2 February 2021	**Japan Europe Number Theory Exchange Seminar**, *Rational approximation to real points on quadratic hypersurfaces*, (via Zoom)
25 June 2020	**Moscow Number Theory Seminar**, *Rational approximation to real points on quadratic hypersurfaces*, (via Zoom)
16 November 2018	**Ottawa (Canada) Number Theory Seminar**, *Diophantine exponents of approximation to a real number and to its square*, University of Ottawa, CANADA
6 June 2018	**École Jeunes Chercheurs en théorie des nombres**, *Exposants d'approximation diophantienne en dimension 2 associés à un nombre et son carré*, Université de Besançon, FRANCE
20 March 2018	**York (UK) Number Theory Seminar**, *Diophantine exponents of approximation in dimension 2 related to a real number and its square*, University of York, UNITED KINGDOM
5 March 2018	**GEPbD**, *Exposants diophantiens pour l'approximation d'un nombre et de son carré*, Universities of Pierre-and-Marie-Curie (Jussieu) and Paris-Diderot, Paris, FRANCE
24 November 2016	**PhD Seminar**, *Introduction à la géométrie paramétrique des nombres*, University of Paris-Sud, Orsay, FRANCE
23 September 2015	**Groupe d'Etude sur les Problèmes Diophantiens (GEPbD)**, *Sur les outils de la géométrie paramétrique des nombres*, University of Pierre-and-Marie-Curie (Jussieu), Paris, FRANCE

Conferences attended

18 - 21 Août	**Invited to the 28th Nordic Congress of Mathematicians**, *Aalto University, Finlande*, Organizers : Anne-Maria Ernvall-Hytönen*, Pär Kurlberg, Tapani Matala-aho, Morten Risager
17 - 23 April 2022	**Invited to Oberwolfach Workshop 2216 - Diophantische Approximationen**, *Oberwolfach, Germany*, Organizers : Y. Bugeaud, P. Corvaja, L. DeMarco, P. Habegger

31 January - 02 February 2022	**Online conference «DAYS of TRANSCENDENCE», in occasion of Professor Yuri Nesterenko's 75th birthday**, *Moscow, online*, Organizer : Nikolay Moshchevitin
7-11 June 2021	**CMS $75 + 1$ Anniversary summer meeting, Session: Amicale de théorie des nombres en hommage à Robert Langlands** , *Ottawa, CANADA*, Organizers : Lucile Devin, Daniel Fiorilli, Damien Roy and Gary Walsh
31 May - 4 June 2021	**Diophantine Analysis and Related Topics**, *Online Conference*, Organizer : Nikolay Moshchevitin
5-8 June 2018	**École jeunes chercheurs en théorie des nombres**, *Besançon, FRANCE*, Organizers: C. Armana, A. Galateau et M. Rougnant
21-25 May 2018	**Diophantine Geometry (CIRM)**, *Luminy, FRANCE*, Organizers: V. Bosser, M. Carrizosa, E. Gaudron, P. Habegger
17-20 October 2017	**XVII$^{\text{th}}$ Journées Louis Antoine**, *Rennes, FRANCE*, Organizers: J. Angst, S. Cantat, X. Caruso, V. Duchêne, F. Loray , F. Maucourant, L. M. Rodrigues, N. Seguin
3-7 July 2017	**XXX$^{\text{th}}$ Journées Arithmétiques**, *Caen, FRANCE*, Organizers: V. Bosser, B. Deschamps, F. Amoroso, E. Féaux de Lacroix, F.T. Ribeiro
20-24 June 2016	**Algèbre et Théorie des nombres, rencontre Lyon-Ottawa**, *Lyon, FRANCE*, Organizers: P. Gille (ICJ, Lyon), D. Roy (University of Ottawa)
13-17 June 2016	**Leuca2016 Celebrating Michel Waldschmidt's 70th birthday**, *Patù (Lecce), ITALY*, Organizers: F. Pappalardi, V. Talamanca
8-10 June 2016	**École jeunes chercheurs en théorie des nombres**, *Clermont-Ferrand, FRANCE*, Organizers: N. Billerey, E. Gaudron, F. Martin and M. Rebolledo