

# Ludovic Levy Patey

Doctor in Computer Science

Équipe de Logique Mathématique  
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## Academic Curriculum

- 2017 – now **CNRS Researcher (“Chargé de Recherche”)**, France
- 2016 – 2017 **Postdoc (“Morrey Visiting Assistant Professor”)**,  
*University of California, Berkeley*
- 2013 – 2016 **PhD on “The reverse mathematics of Ramsey-type theorems”**,  
*Université Paris Diderot (Paris VII)*  
Advised by Laurent Bienvenu and Hugo Herbelin
- 2012 – 2013 **Mathematical Logic and Foundations of Computer Science**,  
*Université Paris Diderot (Paris VII)*, Master degree, Summa cum laude
- 2010 – 2012 **Parisian Master of Research in Computer Science**,  
*École normale supérieure*, Paris, Master degree. Summa cum laude
- 2009 – 2010 **Licence in Computer Science**,  
*École normale supérieure*, Paris, Magna cum laude
- 2007 – 2009 **DEUG in Mathematics**,  
*Université Pierre et Marie Curie (Paris VI)*
- 2006 – 2009 **Computer engineering studies**,  
*SUPINFO - The International Institute of Information Technology*, Paris

## Research Interests

I am interested in the constructive content of mathematical reasoning. I mainly work within the framework of reverse mathematics under a computational perspective. My research primarily focuses on the reverse mathematics of combinatorial theorems, and in particular on Ramsey’s theorem and its consequences.

## Experiences

- May 2012 – **Intern**, *Laboratoire Preuves, Programmes et Systèmes*, Paris, France  
Aug. 2013 Type theory and reverse mathematics.
- Mar. 2012 – **Intern**, *Laboratoire d’Informatique Algorithmique: Fondements et Applications*, Paris, France  
Aug. 2012 Definability of the Turing jump.
- Oct. 2011 – **Intern**, *ROSAEC Center*, Seoul, South Korea  
Feb. 2012 Verification framework of multi-staged programs. Also between Mar. 2011 and Aug. 2011
- Jun. 2010 – **Intern**, *Institut Fourier*, Grenoble, France  
Aug. 2010 Extensive study of the computational complexity of Eternity II and its variants.
- Aug. 2009 – **Casual labor**, *Institut National de Recherche en Agronomie*, Jouy-en-Josas, France  
Oct. 2009 Development of a web interface favouring search in semantic databases.
- Dec. 2009 – **Intern**, *TIMC-IMAG laboratory*, Grenoble, France  
Jun. 2009 Research and implementation of algorithms to search for partial subgraphs isomorphisms.
- Nov. 2007 – **Computer engineer**, *CLASIS SARL*, Paris, France, Permanent contract  
Jun. 2008 Development of a web application of direct marketing.

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## Teaching

- Fall 2023 **Teaching**, *Computability theory and applications*, École Normale Supérieure de Lyon  
This M2 course covers a good part of classical computability theory (Church-Turing thesis, Turing degrees,  $\Pi_1^0$  classes, arithmetical hierarchy, priority methods, forcing...)
- Spring 2022 **Teaching**, *Computability theory - outils classiques*, Université Paris Diderot (Paris VII)  
Course co-taught with Julien Cervelle. It covers advances topics in classical computability theory, and some basics of Kolmogorov complexity and algorithmic randomness.
- Fall 2021 **Teaching**, *Computability theory and applications*, École Normale Supérieure de Lyon  
This M2 course covers a good part of classical computability theory (Church-Turing thesis, Turing degrees,  $\Pi_1^0$  classes, arithmetical hierarchy, priority methods, forcing...)
- Spring 2019 **Lab sessions**, *Algorithms and Competitive Programming*, École Polytechnique, Saclay  
Course taught by Adrian Kosowski. The aim of this class is to train students to programming contests.
- Spring 2017 **Teaching**, *Incompleteness and Undecidability*, University of California, Berkeley  
This class covers Gödel's incompleteness theorems, Turing machines, Rice theorem, recursively enumerable sets, among others.
- Fall 2016 **Teaching**, *Introduction to Abstract Algebra*, University of California, Berkeley  
This class covers group theory, commutative rings, ideals, fields, fields extensions, among others.
- Fall 2016 **Teaching**, *Introduction to Analysis*, University of California, Berkeley  
This class covers sequences, limits, continuous functions, uniform convergence, infinite series and the Riemann integral, among others.
- 2014 – 2015 **Lab sessions**, *Internet et Outils IO2*, Université Paris Diderot (Paris VII)  
Course taught by Christophe Prieur. This class covers HTML, CSS, PHP and Javascript.
- 2013 – 2014 **Lab sessions**, *Language C*, Université Paris Diderot (Paris VII)  
Course taught by Jean-Marie Rifflet. This class covers basic structures, pointers, libraries and related tools.
- 2013 – 2014 **Lab sessions**, *Initiation à la programmation IF1*, Université Paris Diderot (Paris VII)  
Course taught by Matthieu Picantin. The aim of this class is to introduce the basics of procedural programming using Java.

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## Publications

### Books

- [BP21] **Calculabilité : Aléatoire, Mathématiques à rebours et Hypercalculabilité**  
Benoit Monin and Ludovic Patey — *Calvage et Mounet*, (2022) ISBN 978-2-916352-96-1.

### Journal papers

- [LM23] **The weakness of the Erdos-Moser theorem under arithmetic reductions**  
Ludovic Levy Patey and Ahmed Mimouni. — *Journal of Mathematical Logic*, to appear.
- [HPY] **Conservation of Ramsey's theorem for pairs and well-foundedness**  
Quentin Le Houérou, Ludovic Levy Patey and Keita Yokoyama. — *Transactions of the AMS*, 378 (2025), no.3, pp. 2157–2186.
- [HP]  **$\Pi_4^0$  conservation of the Ordered Variable Word theorem**  
Quentin Le Houérou and Ludovic Levy Patey. — *Journal of Symbolic Logic*, to appear.
- [BLP24] **The reverse mathematics of Carlson's theorem for located words**  
Tristan Bompard, Lu Liu and Ludovic Levy Patey. — *Journal of Combinatorics*, to appear.
- [CGP22] **The reverse mathematics of CAC for trees**  
Julien Cervelle, William Gaudelier et Ludovic Patey. — *Journal of Symbolic Logic*, 89 (2024), no.3, pp. 1189–1211.
- [AML22] **Carlson-Simpson's lemma and applications in reverse mathematics**  
Paul-Elliot Anglès d'Auriac, Bastien Mignoty, Lu Liu and Ludovic Patey. — *Annals of Pure and Applied Logic*, 174 (2023), no.9, pp. 103287.
- [MP22] **Partition genericity and pigeonhole basis theorems**  
Benoit Monin and Ludovic Patey. — *Journal of Symbolic Logic*, 89 (2024), no.2, pp. 829 - 857.

- [LP22] **The reverse mathematics of the Thin Set and Erdos-Moser theorems**  
Lu Liu and Ludovic Patey — *Journal of Symbolic Logic*, 87 (2022), no.1, pp. 313–346.
- [MP21b] **SRT22 does not imply RT22 in omega-models**  
Benoit Monin and Ludovic Patey — *Advances in Mathematics*, 389 (2021), pp. 107903, 32.
- [ACDMP] **Milliken’s tree theorem and its applications: a computability-theoretic perspective**  
Paul-Elliot Anglès d’Auriac, Peter Cholak, Damir Dzhafarov, Benoit Monin and Ludovic Patey — *Memoirs of the AMS*, 293 (2024), no.1457, pp. vi+118.
- [GTPT] **Computing sets from all infinite subsets**  
Noam Greenberg, Matthew Harrison-Trainor, Ludovic Patey and Dan Turetsky — *Transactions of the AMS*, 374 (2021), no.11, pp. 8131–8160.
- [Pat21] **Ramsey-like theorems and moduli of computation**  
Ludovic Patey — *Journal of Symbolic Logic*, 87 (2022), no.1, pp. 72–108.
- [DGHPT] **Relationships between computability-theoretic properties of problems**  
Rod Downey, Noam Greenberg, Matthew Harrison-Trainor, Ludovic Patey and Daniel Turetsky — *Journal of Symbolic Logic*, 87 (2022), no.1, pp. 47–71.
- [MP21a] **The weakness of the pigeonhole principle under hyperarithmetical reductions**  
Benoit Monin and Ludovic Patey — *Journal of Mathematical Logic*, 21 (2021), no.3, pp. 2150013, 41.
- [DP21] **COH, SRT22, and multiple functionals**  
Damir Dzhafarov and Ludovic Patey — *Computability*, 10 (2021), no. 2, 111–121.
- [CDHP20] **Some results concerning the SRT22 vs COH problem**  
Peter Cholak, Damir Dzhafarov, Denis Hirschfeldt and Ludovic Patey — *Computability*, 9 (2020), no. 3-4, 193–217.
- [CP20] **Thin set theorems and cone avoidance**  
Peter Cholak and Ludovic Patey — *Transactions of the American Mathematical Society*, 373 (2020), no. 4, 2743–2773.
- [DGHPP] **Ramsey’s theorem and products in the Weihrauch degrees**  
Damir Dzhafarov, Jun Le Goh, Denis Hirschfeldt, Ludovic Patey and Arno Pauly — *Computability*, 9 (2020), no. 2, 85–110.
- [MP19] **Pigeons do not jump high**  
Benoit Monin and Ludovic Patey — *Advances in Mathematics*, 352, (2019), 1066–1095.
- [CIPST] **The Rado path decomposition theorem**  
Peter Cholak, Gregory Igusa, Ludovic Patey, Mariya Soskova and Dan Turetsky — *Israel Journal of Mathematics*, Israel J. Math. 234 (2019), no. 1, 179–208.
- [LPM] **A computable analysis of variable words theorems**  
Lu Liu, Ludovic Patey and Benoit Monin. — *Proceedings of the AMS*, 147 (2019), no. 2, 823–834.
- [PY] **The proof-theoretic strength of Ramsey’s theorem for pairs and two colors**  
Ludovic Patey and Keita Yokoyama. — *Advances in Mathematics*, 330 (2018), 1034–1070.
- [DP16] **Coloring trees in reverse mathematics**  
Damir Dzhafarov and Ludovic Patey — *Advances in Mathematics*, 318 (2017), 497–514.
- [Pat16a] **Dominating the Erdős-Moser theorem in reverse mathematics**  
Ludovic Patey. — *Annals of Pure and Applied Logic*, 168 (2017), no. 6, 1172–1209.
- [BPS15] **On the logical strengths of partial solutions to mathematical problems**  
Laurent Bienvenu, Ludovic Patey and Paul Shafer.  
— *Transactions of the London Mathematical Society*, 4 (2017), no. 1, 30–71.
- [Pat16b] **The reverse mathematics of non-decreasing subsequences**  
Ludovic Patey — *Archive for Mathematical Logic*, 56 (2017), no. 5-6, 491–506.
- [Pat16c] **Partial orders and immunity in reverse mathematics**  
Ludovic Patey — *Computability*, 7 (2018) no. 4, 323–339.
- [FP15] **Coloring the rationals in reverse mathematics**  
Emanuele Frittaion and Ludovic Patey — *Computability*, 6 (2017), no. 4, 319–331.

- [MP16] **Pi01 encodability and omniscient reductions**  
Benoit Monin and Ludovic Patey — *Notre Dame Journal of Formal Logic*, 60 (2019), no. 1, 1–12.
- [DLSW] **Ramsey’s theorem for singletons and strong computable reducibility**  
Damir Dzhafarov, Ludovic Patey, Reed Solomon and Linda Brown Westrick  
— *Proceedings of the American Mathematical Society*, 145 (2017), no. 3, 1343–1355.
- [Pat15j] **The weakness of being cohesive, thin or free in reverse mathematics**  
Ludovic Patey. — *Israel Journal of Mathematics*, 216 (2016), no. 2, 905–955.
- [BP] **Diagonally non-computable functions and fireworks**  
Laurent Bienvenu and Ludovic Patey. — *Information and Computation*, 253 (2017), part 1, 64–77.
- [Pat15b] **Controlling iterated jumps of solutions to combinatorial problems**  
Ludovic Patey. — *Computability*, 6 (2017), no. 1, 47–78.
- [Pat15i] **The strength of the tree theorem for pairs in reverse mathematics**  
Ludovic Patey. — *Journal of Symbolic Logic*, 81 (2016), no. 4, 1481–1499.
- [Pat15k] **Iterative forcing and hyperimmunity in reverse mathematics**  
Ludovic Patey. — *Computability*, 6 (2017), no. 3, 209–221.
- [Pat15e] **Open questions about Ramsey-type statements in reverse mathematics**  
Ludovic Patey. — *Bulletin of Symbolic Logic*, 22 (2016), no. 2, 151–169.
- [Pat15c] **Degrees bounding principles and universal instances in reverse mathematics**  
Ludovic Patey. — *Annals of Pure and Applied Logic*, 166 (2015), no. 11, 1165–1185.
- [Pat15f] **Ramsey-type graph coloring and diagonal non-computability**  
Ludovic Patey. — *Archive for Mathematical Logic*, 54 (2015), no. 7-8, 899–914.
- [Pat15h] **The complexity of satisfaction problems in reverse mathematics**  
Ludovic Patey. — *Computability*, 4 (2015), no. 1, 69–84.

### Conference papers

- [Pat16] **Partial Orders and Immunity in Reverse Mathematics**  
Ludovic Patey. — *Lecture Notes in Computer Science, Computability in Europe*, 353–363 (2016)
- [Pat15d] **Iterative Forcing and Hyperimmunity in Reverse Mathematics**  
Ludovic Patey. — *Lecture Notes in Computer Science, Computability in Europe*, 291–301 (2015)
- [Pat14] **The Complexity of Satisfaction Problems in Reverse Mathematics**  
Ludovic Patey. — *Lecture Notes in Computer Science, Computability in Europe*, 333–342 (2014)

### Submitted papers

- [CGLP] **Ramsey-like theorems for the Schreier barrier**  
Lorenzo Carlucci, Oriola Gjetaj, Quentin Le Hou  rou and Ludovic Levy Patey. — Submitted
- [CGP] **Cross-constraint basis theorems and products of partitions**  
Julien Cervelle, William Gaudelier and Ludovic Levy Patey. — Submitted
- [HPM] **The reverse mathematics of pigeonhole hierarchies**  
Quentin Le Hou  rou, Ludovic Levy Patey and Ahmed Mimouni. — Submitted
- [HPY1]  $\Pi_1^0$  **conservation of Ramsey’s theorem for pairs**  
Quentin Le Hou  rou, Ludovic Levy Patey and Keita Yokoyama. — Submitted

### Drafts

- [Pat15a] **Combinatorial weaknesses of ramseyan principles**  
Ludovic Patey. — In preparation.

### Awards

- 2017 **Thiess   de Rosemont/Demassieux prize**, *Chancellerie des Universit  s de Paris*
- 2016 **Sacks prize**, *Association for Symbolic Logic*
- 2016 **Accessit to the Gilles Kahn thesis prize**, *Soci  t   Informatique de France*
- 2015 **Best student paper award**, *Computability in Europe*, Bucharest, Romania  
Paper: Iterative forcing and hyperimmunity in reverse mathematics

2014 **Best student paper award**, *Computability in Europe*, Budapest, Hungary  
Paper: The complexity of satisfaction problems in reverse mathematics

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## Invitations

### Invited talks

- Jul. 2025 **Tutorial**, *ESI Thematic Programme on "Reverse Mathematics" (AGW25)*, Vienna, Austria
- Jun. 2024 **Plenary speaker**, *Algebra and Mathematical Logic: Theory and Applications*, Online  
Talk: Ramsey's theorem for pairs and well-foundedness
- Jun. 2024 **Plenary speaker**, *Ramsey Theory in Logic, Combinatorics and Complexity*, Pisa, Italy  
Talk: Partial conservation of Ramsey's theorem for pairs
- Jul. 2023 **Tutorial**, *Computability in Europe*, Batumi, Georgia  
Talk: Ramsey theory computes through sparsity
- May. 2022 **Plenary speaker**, *Leeds Computability Days*, Leeds, UK, Attended online  
Talk: Partition genericity and pigeonhole basis theorems
- Jun. 2021 **Plenary speaker**, *Third Workshop on Digitalization and Computable Models*, Online  
Talk: Classification of Ramsey-like theorems.
- Feb. 2021 **Special session**, *SouthEastern Logic Symposium*, Online  
Talk: Classifications of Ramsey-like theorems.
- Feb. 2021 **Seminar**, *Online Logic Seminar*, Online  
Talk: Canonical notions of forcing in computability theory.
- May 2020 **Plenary speaker**, *NSF-FRG meeting on Reverse Mathematics of combinatorial principles [Cancelled]*, Penn State University, PA, USA
- Apr. 2020 **Tutorial**, *Workshop on Computability, Algebraic structures, and Randomness [Cancelled]*, Kyoto, Japan
- Dec. 2019 **Special session**, *Canadian Mathematical Society Winter Meeting*, Toronto, Canada  
Talk: SRT22 does not imply RT22 in omega-models
- May 2019 **Special session**, *ASL Annual North American Meeting*, New York, NY, USA  
Talk: Ramsey-like theorems and moduli of computation
- Mar. 2019 **Plenary speaker**, *Third Workshop on Mathematical Logic and its Applications*, Nancy, France  
Talk: Ramsey-like theorems and moduli of computation
- Aug. 2018 **Plenary speaker**, *Computability and Complexity in Analysis*, Munich, Germany  
Talk: Never underestimate pigeons
- Jul. 2018 **Plenary speaker**, *Logic Colloquium*, Udine, Italy  
Talk: Ramsey's theorem under a computable perspective
- Sep. 2017 **Plenary speaker**, *Computability Theory and Foundations of Mathematics*, Singapore  
Talk: Can we fish with Mathias forcing?
- Jul. 2017 **Plenary speaker**, *Computability, Complexity and Randomness*, Mysore, India  
Talk: The weakness of Ramsey's theorem under omniscient reductions
- Jun. 2017 **Plenary speaker**, *Computability in Europe*, Turku, Finland  
Talk: Ramsey's theorem under a computable perspective
- Mar. 2017 **Special session**, *Southeastern Logic Symposium*, Gainesville, FL, USA  
Talk: The strength of the thin set theorems
- Jan. 2017 **Plenary speaker**, *Computability and Complexity Symposium*, Wellington, New-Zealand  
Talk: The reverse mathematics of non-decreasing sequences
- Oct. 2016 **Plenary speaker**, *Midwest Computability Seminar, Special Meeting in Honor of Carl Jockusch's 75th Birthday*, Chicago, IL, USA  
Talk: Coloring trees and rationals in reverse mathematics
- Jul. 2016 **Plenary speaker**, *Workshop on Computability Theory*, Ghent, Belgium  
Talk: How randomly rainbows appear!

- May. 2016 **Plenary speaker**, *The Foundational Impact of Recursion Theory, in honor of Steve Simpson's 70th birthday*, Storrs, Connecticut  
Talk: The weakness of Ramsey's theorem under omniscient reductions
- Jun. 2015 **Special session**, *Computability in Europe*, Bucharest, Romania  
Talk: How colorings reduce when colors increase
- Jul. 2014 **Plenary speaker**, *Workshop on Computability Theory*, Prague, Czech Republic  
Talk: On universal instances of principles in reverse mathematics

### Invited participations

- Oct. 2023 **Workshop**, *Recursion theory and its applications*, Hangzhou, China, Attended online
- Apr. 2021 **Seminar**, *Computability Theory*, Oberwolfach, Germany, Attended online
- Sep. 2019 **Workshop**, *Reverse Mathematics of Combinatorial Principles*, Oaxaca, Mexico  
Talk: SRT<sub>22</sub> does not imply COH in omega-models
- Sep. 2018 **Seminar**, *Measuring the Complexity of Computational Content*, Dagstuhl, Germany  
Talk: RT<sub>22</sub> compared to the product of SRT<sub>22</sub> and COH
- Jul. 2018 **Seminar**, *Ramsey Theory in Logic, Combinatorics and Complexity*, Bertinoro, Italy
- Jan. 2018 **Seminar**, *Computability Theory*, Oberwolfach, Germany  
Talk: Pigeons do not jump high
- Sep. 2017 **Conference**, *Aspects of Computation*, Singapore
- Jan. 2016 **Conference**, *New Challenges in Reverse Mathematics*, Singapore, Singapore  
Talk: Ramsey's theorem and compactness
- Sep. 2015 **Seminar**, *Measuring the Complexity of Computational Content*, Dagstuhl, Germany  
Talk: Controlling iterated jumps of Ramsey-type theorems

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### Popular science press

- May 2016 **Quanta Magazine**, *Mathematicians Bridge Finite-Infinite Divide*, by Natalie Wolchover  
<https://www.quantamagazine.org/20160524-mathematicians-bridge-finite-infinite-divide/>

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### Supervision

- 2023 – 2026 **Doctorat**, *Quentin Le Houérou*, Arithmetic consequences of combinatorial theorems  
Co-advised with Julien Cervelle
- 2022 – 2025 **PhD**, *Ahmed Mimouni*, Arithmetic properties of combinatorial theorems  
Co-advised with Julien Cervelle and Laura Fontanella
- 2022 **M2 Internship**, *Tristan Bompard*, Computable analysis of Carlson's theorem
- 2022 **M2 Internship**, *Bastien Mignoty*, Reverse matheamtics of the Ascending Descending Sequence theorem
- 2021 – 2024 **PhD**, *William Gaudelier*, Computable analysis of Ramsey-type theorems  
Co-advised with Benoît Monin and Julien Cervelle
- 2021 **M2 Internship**, *William Gaudelier*, Computable analysis of Ramsey-type theorems  
Co-advised and Benoît Monin
- 2020 **L3 Internship**, *Quentin Le Houérou*, Computable analysis of the Rainbow Ramsey theorem  
Co-advised with Paul-Elliot Anglès d'Auriac
- 2019 **Postdoc**, *Paul-Elliot Anglès d'Auriac*, Hindman's theorem and variable words

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### Grants

- Feb. 2020 **Grant**, *Research in Paris*, with Peter Cholak at the Institut Henri-Poincaré, Paris, France  
Project: Computability-theoretic aspects of thin set theorem
- Jan. 2020 – Dec. 2022 **Grant**, *International Emerging Action*, France-Japan project with Keita Yokoyama  
Project: Frontier topics in computability theory



- Oct. 2019 – **Grant**, *ANR Jeunes Chercheurs*  
 Sept. 2022 Project: Computational Aspects of Combinatorial Theorems  
 Jan. 2018 **Grant**, *Research in pairs*, with Peter Cholak, Damir Dzhafarov and Denis Hirschfeldt, Oberwolfach, Germany  
 Project: The computational strength of versions of Ramsey’s Theorem  
 Oct. 2016 **Grant**, *Research in pairs*, with Damir Dzhafarov and Denis Hirschfeldt, Oberwolfach, Germany  
 Project: The computational strength of versions of Ramsey’s Theorem

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## International conferences and seminars

### Future events

- July 2023 **Computability in Europe**, *Conference*, Batumi, Georgia

### Past events

- June 2022 **Logic Colloquium**, *Conference*, Reykjavik, Iceland  
 June 2022 **Workshop on Reverse Mathematics and its Philosophy**, *Conference*, Paris, France  
 June 2022 **International conference on computability, complexity and randomness**, *Conference*, Cambridge, UK  
 May 2022 **Leeds Computability Day**, *Workshop*, Leeds, UK, Attended online  
 Mar. 2022 **New directions in computability theory**, *Conference*, Luminy, France  
 June 2021 **Third Workshop on Digitalization and Computable Models**, *Workshop*, Online  
 Apr. 2021 **Computability Theory**, *Conference*, Oberwolfach, Germany, Attended online  
 Feb. 2021 **SouthEastern Logic Symposium**, *Conference*, Online  
 May 2020 **NSF-FRG meeting on Reverse Mathematics of combinatorial principles [Cancelled]**, *Conference*, Penn State University, PA, USA  
 Mar. 2020 **ASL North American Annual Meeting [Cancelled]**, *Conference*, Irvine, CA, USA  
 Jun. 2020 **Leeds Computability Days**, *Workshop [Cancelled]*, Leeds, UK  
 Dec. 2019 **Canadian Mathematical Society Winter Meeting**, *Conference*, Toronto, Canada  
 Sep. 2019 **Reverse Mathematics of Combinatorial Principles**, *Workshop*, Oaxaca, Mexico  
 May 2019 **ASL Annual North American Meeting**, *Conference*, New York, NY, USA  
 Mar. 2019 **Third Workshop on Mathematical Logic and its Applications**, *Workshop*, Nancy, France  
 Sep. 2018 **Measuring the Complexity of Computational Content**, *Seminar*, Dagstuhl, Germany  
 Aug. 2018 **Computability and Complexity in Analysis**, *Conference*, Munich, Germany  
 Jul. 2018 **Logic Colloquium**, *Conference*, Udine, Italy  
 Jul. 2018 **Ramsey Theory in Logic, Combinatorics and Complexity**, *Seminar*, Bertinoro, Italy  
 Jul. 2018 **Workshop on Ramsey Theory and Computability**, *Workshop*, Rome, Italy  
 Jan. 2018 **Computability Theory**, *Seminar*, Oberwolfach, Germany  
 Sep. 2017 **Computability Theory and Foundations of Mathematics**, *Workshop*, Singapore  
 Jul. 2017 **Computability, Complexity and Randomness**, *Conference*, Mysore, India  
 Jun. 2017 **Computability in Europe**, *Conference*, Turku, Finland  
 Mar. 2017 **Southeastern Logic Symposium**, *Conference*, Gainesville, FL, USA  
 Jan. 2017 **Computability and Complexity Symposium**, *Conference*, Wellington, New-Zealand  
 Oct. 2016 **Midwest Computability Seminar, Special Meeting in Honor of Carl Jockusch’s 75th Birthday**, *Seminar*, Chicago, IL, USA  
 Jul. 2016 **Workshop on Computability Theory**, *Workshop*, Ghent, Belgium  
 Jun. 2016 **Computability in Europe**, *Conference*, Paris, France  
 Jun. 2016 **Computability, Randomness and Applications**, *Conference*, Marseille, France  
 May. 2016 **Annual North American Meeting**, *Conference*, Storrs, Connecticut

- May. 2016 **The Foundational Impact of Recursion Theory, in honor of Steve Simpson's 70th birthday**, *Workshop*, Storrs, Connecticut
- Jan. 2016 **New Challenges in Reverse Mathematics**, *Conference*, Singapore, Singapore
- Sep. 2015 **Measuring the Complexity of Computational Content**, *Seminar*, Dagstuhl, Germany
- Jun. 2015 **Computability in Europe**, *Conference*, Bucarest, Romania
- Jun. 2015 **Computability, Complexity and Randomness**, *Conference*, Heidelberg, Germany
- Jun. 2015 **Varieties of Algorithmic Information**, *Conference*, Heidelberg, Germany
- Jul. 2014 **Workshop on Computability Theory**, *Workshop*, Prague, Czech Republic
- Jul. 2014 **Computability in Europe**, *Conference*, Budapest, Hungary
- May. 2014 **Types**, *Conference*, Paris, France
- Sep. 2013 **Computability, Complexity and Randomness**, *Conference*, Moscow, Russia
- Jul. 2013 **Logic Colloquium**, *Conference*, Evora, Portugal
- Jul. 2013 **Computability in Europe**, *Conference*, Milan, Italy
- Mar. 2013 **Reverse Mathematics and Type Theory**, *Workshop*, Seoul, South Korea
- Jun. 2012 **Computability in Europe**, *Conference*, Cambridge, United Kingdom

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## Committees and services

- Referee **Journals:** Archive for Mathematical Logic, Computability, Journal of Symbolic Logic, Mathematical Structures in Computer Science, Selecta Mathematica.  
**Conferences:** Computability in Europe 2014, 2017, 2018, 2019, Symposium on Theoretical Aspects of Computer Science 2017, 2018, Symposium on Logic in Computer Science 2017, 2018.  
**Databases:** Mathematical Reviews 2015 – 2016
- March 2022 **Organizer**, *New directions in computability theory*, CIRM, Luminy, France
- June 2020 **Organizer**, *GT Calculabilités days from the GDR-IM [Cancelled]*, Lyon, France
- May 2020 **Recruitment committee**, *Job of Maître de conférences at the LACL and a the MMI department of the IUT of Sénart Fontainebleau*, Créteil, France
- July 2018 **Program committee**, *Workshop on Ramsey Theory and Computability*, Rome, Italy

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## Languages

- French Mother tongue
- English Fluent (110/120 at TOEFL)
- German Advanced

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## Computer Skills

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|-----------|-------------------------------------|-----|------------------------|
| Languages | PHP, Java, Scala, C, C++, Ocaml, C# | Web | HTML5, CSS, Javascript |
| Platforms | Ubuntu, Windows, Mac OS             | DB  | MySQL, Oracle, CouchDB |
| Tools     | LaTeX, Git, Subversion, Coq         |     |                        |