Éric COLIN de VERDIÈRE

August 29, 2018

Born in 1977 in Paris
Married, five children
French citizen
`eric.colindeverdiere(at)u-pem.fr`
`http://monge.univ-mlv.fr/~colinde/`

LIGM, UMR 8049
Cité Descartes, Bâtiment Copernic
5, bd Descartes
Champs sur Marne
77 454 Marne-la-Vallée Cedex 2
France

Research Interests

At the interface between computer science and mathematics: algorithms and combinatorics mixed with topology and geometry. More specifically, computational topology, computational geometry, graph algorithms, combinatorial optimization, combinatorial geometry.

Employment

2016–...	CNRS research director (DR2) at Laboratoire d'Informatique Gaspard Monge (LIGM), Marne-la-Vallée (section 07)
2004–2016	CNRS research scientist (CR2 and then CR1) at the computer science department of École normale supérieure, Paris (ENS) (section 06 and/or 07)
2001–2004	*Allocation couplée* (research and teaching grant for Ph.D. preparation) at ENS
1997–2001	Student at ENS (*élève fonctionnaire stagiaire*)

Education and Diploma

May 2012	*Habilitation à diriger des recherches* in computer science, ENS
Dec. 2003	Ph.D. in algorithms, University Paris 7, prepared at the Computer Science Department of ENS. Advisor: Michel Pocchiola
2000	*DEA* (advanced graduate class) in algorithms of University Paris 7
1997–1999	Studies in mathematics at ENS: *Licence* (B.A.), *Maîtrise* (M.S.), *Agrégation* (national competitive exam for recruiting teachers)
July 1997	Admission at ENS (mathematics section)
July 1995	*Baccalauréat* (Scientific section)

Distinctions and Awards

2013–2016	Recipient of the *Prime d'excellence scientifique* (without teaching requirement)
2012	Best paper award at *Symposium on Computational Geometry* of ACM, with Grégory Ginot and Xavier Goaoc (2 awards from 44 accepted papers and 126 submissions) [7]
2004	*Accessit* of Ph.D. thesis award of *Specif (Société des Personnels Enseignants-Chercheurs en Informatique de France)*
2004	Ph.D. thesis award of *Association Française d'Informatique Fondamentale*

⋆
⋆ ⋆

Publications (Each paper is listed only once, even if it appeared in multiple versions.)

Book Chapter

[1] Éric Colin de Verdière. Computational topology of graphs on surfaces. In Jacob E. Goodman, Joseph O'Rourke, and Csaba Toth, editors, *Handbook of Discrete and Computational Geometry*, third edition, chapter 23, pages 605–636. CRC Press LLC, 2018.

Journal Articles

[2] Éric Colin de Verdière, Vojtěch Kaluža, Pavel Paták, Zuzana Patáková, and Martin Tancer. A direct proof of the strong Hanani-Tutte theorem on the projective plane. *Journal of Graph Algorithms and Applications*, 21(5):939–981, 2017.

Invited to special issue of this journal after preliminary version in *Proceedings of the 24th International Symposium on Graph Drawing and Network Visualization (GD)*, pages 454–467, 2016.

[3] Éric Colin de Verdière. Multicuts in planar and bounded-genus graphs with bounded number of terminals. *Algorithmica*, 78(4):1206–1224, 2017.

Invited to special issue of this journal after preliminary version in *Proceedings of the European Symposium on Algorithms (ESA)*, volume 9294 of *Lecture Notes in Computer Science*, pages 373–385, 2015.

[4] Sergio Cabello, Éric Colin de Verdière, and Francis Lazarus. Finding shortest non-trivial cycles in directed graphs on surfaces. *Journal of Computational Geometry*, 7(1):123–148, 2016.

Preliminary version in *Proceedings of the 26th Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 156–165, 2010.

[5] Benjamin A. Burton, Éric Colin de Verdière, and Arnaud de Mesmay. On the complexity of immersed normal surfaces. *Geometry and Topology*, 20:1061–1083, 2016.

[6] Éric Colin de Verdière, Alfredo Hubard, and Arnaud de Mesmay. Discrete systolic inequalities and decompositions of triangulated surfaces. *Discrete & Computational Geometry* 53(3):587–620, 2015.

Invited to special issue of this journal after preliminary version in *Proceedings of the 30th Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 335–344, 2014.

[7] Éric Colin de Verdière, Grégory Ginot, and Xavier Goaoc. Multinerves and Helly numbers of acyclic families. *Advances in Mathematics* 253:163–193, 2014.

Preliminary version in *Proceedings of the 28th Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 209–218, 2012. **Best paper award.**

[8] Éric Colin de Verdière and Arnaud de Mesmay. Testing graph isotopy on surfaces. *Discrete & Computational Geometry* 51(1):171–206, 2014.

Preliminary version in *Proceedings of the 28th Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 141–150, 2012.

[9] Alexandre Boulch, Éric Colin de Verdière, and Atsuhiro Nakamoto. Irreducible triangulations of surfaces with boundary. *Graphs and Combinatorics* 29(6):1675–1688, 2013.

[10] Sergio Cabello, Éric Colin de Verdière, and Francis Lazarus. Algorithms for the edge-width of an embedded graph. *Computational Geometry: Theory and Applications*, 45:215–224, 2012.

Invited to special issue of this journal after preliminary version (under slightly different title) in *Proceedings of the 26th Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 147–155, 2010.

[11] Sergio Cabello, Éric Colin de Verdière, and Francis Lazarus. Finding cycles with topological properties in embedded graphs. *SIAM Journal on Discrete Mathematics*, 25:1600–1614, 2011.

[12] Éric Colin de Verdière and Alexander Schrijver. Shortest vertex-disjoint two-face paths in planar graphs. *ACM Transactions on Algorithms*, 7(2), Article No. 19, 2011.

Preliminary version in *Proceedings of the 25th Annual International Symposium on Theoretical Aspects of Computer Science (STACS)*, pages 181–192, 2008.

[13] Éric Colin de Verdière and Jeff Erickson. Tightening non-simple paths and cycles on surfaces. *SIAM Journal on Computing*, 39(8):3784–3813, 2010.
Preliminary version in *Proceedings of the 17th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 192–201, 2006.

[14] Erin W. Chambers, Éric Colin de Verdière, Jeff Erickson, Sylvain Lazard, Francis Lazarus, and Shripad Thite. Homotopic Fréchet distance between curves — or, walking your dog in the woods in polynomial time. *Computational Geometry: Theory and Applications*, 43:295–311, 2010.
Invited to special issue of this journal after preliminary version (under slightly different title) in *Proceedings of the 24th Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 101–109, 2008.

[15] Erin W. Chambers, Éric Colin de Verdière, Jeff Erickson, Francis Lazarus, and Kim Whittlesey. Splitting (complicated) surfaces is hard. *Computational Geometry: Theory and Applications*, 41(1–2):94–110, 2008.
Preliminary version in *Proceedings of the 22nd Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 421–429, 2006.

[16] Éric Colin de Verdière and Francis Lazarus. Optimal pants decompositions and shortest homotopic cycles on an orientable surface. *Journal of the ACM*, 54(4):Article No. 18, 2007.
Preliminary version in *Proceedings of the 11th Annual Symposium on Graph Drawing (GD)*, volume 2912 of *Lecture Notes in Computer Science*, pages 478–490, 2003.

[17] Pierre Alliez, Éric Colin de Verdière, Olivier Devillers, and Martin Isenburg. Centroidal Voronoi diagrams for isotropic surface remeshing. *Graphical Models*, 67(3):204–231, 2005.
Invited to special issue of this journal after preliminary version in *Proceedings of the International Conference on Shape Modelling and Applications (SMI)*, pages 49–58, 2003.

[18] Éric Colin de Verdière and Francis Lazarus. Optimal system of loops on an orientable surface. *Discrete & Computational Geometry*, 33(3):507–534, 2005.
Preliminary version in *Proceedings of the 43rd Annual IEEE Symposium on Foundations of Computer Science (FOCS)*, pages 627–636, 2002.

[19] David Cohen-Steiner, Éric Colin de Verdière, and Mariette Yvinec. Conforming Delaunay triangulations in 3D. *Computational Geometry: Theory and Applications*, 28(2–3):217–233, 2004.
Invited to special issue of this journal after preliminary version in *Proceedings of the 18th Annual Symposium on Computational Geometry (SOCG)*, ACM, pages 199–208, 2002.

[20] Éric Colin de Verdière, Michel Pocchiola, and Gert Vegter. Tutte's barycenter method applied to isotopies. *Computational Geometry: Theory and Applications*, 26(1):81–97, 2003.
Invited to special issue of this journal after preliminary version in *Abstracts for the 13th Canadian Conference on Computational Geometry (CCCG)*, pages 57–60, 2001.

Articles in International Conferences with Refereeing (when no journal version is available)

[21] Éric Colin de Verdière, Thomas Magnard, and Bojan Mohar. Embedding graphs into two-dimensional simplicial complexes. In *Proceedings of the 34th International Symposium on Computational Geometry (SoCG)*, pages 27:1–27:14, 2018.

[22] Vincent Cohen-Addad, Éric Colin de Verdière, and Arnaud de Mesmay. A near-linear approximation scheme for multicuts of embedded graphs with a fixed number of terminals. In *Proceedings of the 29th ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 1439–1458, 2018.

[23] Éric Colin de Verdière and Salman Parsa. Deciding contractibility of a non-simple curve on the boundary of a 3-manifold. In *Proceedings of the 28th ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 2691–2704, 2017.

[24] Vincent Cohen-Addad, Éric Colin de Verdière, Philip N. Klein, Claire Mathieu, and David Meierfrankenfeld. Approximating connectivity domination in weighted bounded-genus graphs. In *Proceedings of the 48th ACM Symposium on the Theory of Computing (STOC)*, pages 584–597, 2016.

[25] Éric Colin de Verdière. Shortest cut graph of a surface with prescribed vertex set. In *Proceedings of the 18th European Symposium on Algorithms (ESA), part 2*, volume 6347 of *Lecture Notes in Computer Science*, pages 100–111, 2010.

Miscellaneous Publications

[26] Éric Colin de Verdière and Arnaud de Mesmay. De la carte au territoire ? *Images des Mathématiques*, CNRS, 2014. Popularization article (in French) based on [8].

[27] Éric Colin de Verdière. Algorithms for embedded graphs. Course notes, 2008–2017. Available at `http://monge.univ-mlv.fr/~colinde/cours/all-algo-embedded-graphs.pdf`.

[28] Éric Colin de Verdière. *Topological algorithms for graphs on surfaces*. Habilitation thesis, École normale supérieure, May 2012.
Referees: Victor Chepoi, Bojan Mohar, Jack Snoeyink.
Examiners: Jean-Daniel Boissonnat, Victor Chepoi, Michel Habib (chair), Sylvain Petitjean, Jean Ponce, Gilles Schaeffer, Jean-Marc Schlenker.

[29] Éric Colin de Verdière. *Raccourcissement de courbes et décomposition de surfaces*. Ph.D. thesis, University Paris 7, December 2003.
Referees: Herbert Edelsbrunner, Günter Rote, Marie-Françoise Roy.
Examiners: Christian Choffrut (chair), Christiane Frougny, Michel Pocchiola (advisor), Günter Rote, Marie-Françoise Roy, Brigitte Vallée.

Long Visits (each of at least two weeks)

2012	18-day visit at University of Queensland, Brisbane (Australia), as "Ethel Raybould Visiting Fellow"; work with Benjamin Burton
2005–2006	2 visits of 2 weeks at University of Illinois at Urbana-Champaign (UIUC), work with Jeff Erickson
2004	6-month visit at CWI Amsterdam (Netherlands), work with Alexander Schrijver
2000	2-week visit at INRIA Sophia-Antipolis, work with David Cohen-Steiner and Mariette Yvinec
2000	3-month internship at University of Groningen (Netherlands), work with Gert Vegter
1999	3-month programming internship at Inria Nancy, work with Sylvain Lazard and Sylvain Petitjean

Presentations

Conference and Workshop Presentations, on Invitation

Discrete and Computational Geometry seminar (Paris, Mar. 2018) – Foundations of Computational Mathematics (Barcelona, July 2017) (2 talks) – Combinatorial Geometry Days (Grenoble, Mar. 2017) – ANR GATO (École polytechnique, Jan. 2017) – STOC-SOCG Workshop "Algorithms on topologically restricted graphs" (Boston, June 2016) – Workshop "Computational geometric and algebraic topology" (Oberwolfach, Oct. 2015) – ANR EGOS (Bordeaux, Nov. 2014) – Workshop "Knot theory: Algorithms, complexity and computation" (Shonan, Japan, Apr. 2014) – ANR EGOS, École Polytechnique (Nov. 2013) – Journées Informatique et Géométrie (1-hour plenary talk, Nancy, Nov. 2013) – Philippe Flajolet Combinatorics Seminar (Paris, Oct. 2013) – Scientific Council of INS2I–CNRS, Paris (May 2013) – Journées Graphes et Algorithmes (1-hour plenary talk, Marseille, Nov. 2010) – Workshop "High-Complexity Discrete Geometry" (Berlin, Germany, Oct. 2011, poster presentation) – SIAM Symposium on Discrete Mathematics (Austin, USA, June 2010) – Subdivide and Tile (Leiden, Netherlands, Nov. 2009, poster presentation) – Spécif workshop (Clermont-Ferrand, Jan. 2005) – Autour de l'Homotopie (Paris, Mar. 2003) (2 talks) – Journées Nationales de Calcul Formel (Marseille, Jan. 2003) – Journées du GDR ALP (Paris, Jan. 2003) – Planar Maps CGAL days (Inria Sophia-Antipolis, Nov. 1999)

Invited Talks at Math. or CS Departments

Geometry Seminar of University of Luxembourg (Feb. 2018) – Geometry Seminar of Institut Mathématique de Jussieu (Dec. 2016) – G-Scop, Grenoble (Oct. 2016) – École normale supérieure de Lyon (Jan. 2016) – CS Laboratory, Marseille (June 2015) – Yokohama topological graph theory seminar (Apr. 2014) – Mathematics Department, Marseille (Jan. 2014) – IST Vienna, Austria (Aug. 2013) – LIGM, Marne-la-Vallée (Dec. 2012) – University of Queensland (seminar, July 2012) – University of Queensland (colloquium, June 2012) – LIAFA,

Université Paris 7 (Jan. 2011) – Clermont-Ferrand (May 2010) – Inria Nancy (May 2009) – LIRMM, Montpellier (Dec. 2008) – École normale supérieure de Lyon (Dec. 2008) – Clermont-Ferrand (Oct. 2006) – University of Illinois at Urbana-Champaign, USA (Nov. 2005) – Ljubljana, Slovenia (May 2005) – Inria Nancy (Oct. 2004) – CWI, Amsterdam, Netherlands (two talks, Apr. 2004) – LRI, Orsay (Apr. 2004) – EHESS, Paris (Nov. 2003) – Univ. Bourgogne (Nov. 2003) – Combinatorics Seminar of Univ. Paris 6 (June 2003) – CS Laboratory, Marseille (Mar. 2003) – Inria Sophia-Antipolis (Apr. 2002) – CS Students seminar of ENS (Jan. 2002) – University of Groningen, Netherlands (July 2000) – Inria Lorraine (Feb. 2000)

Other Conference and Workshop Presentations

LIGM seminar (Marne-la-Vallée, Mar. 2018) – Astonishing workshop (Nancy, Sep. 2017) – ACM-SIAM Symposium on Discrete Algorithms (SODA) (Barcelona, Spain, Jan. 2017) – Journées Informatique et Géométrie (Marne-la-Vallée, Oct. 2015) – European Symposium on Algorithms (ESA) (Patras, Greece, Sep. 2015) – Symposium on Computational Geometry (SOCG), ACM (Chapel Hill, USA, June 2012) – Journées de Géométrie Algorithmique (Cluny, Apr. 2012) – Workshop on Triangulations (Inria Sophia-Antipolis, Dec. 2010) – European Symposium on Algorithms (ESA) (Liverpool, UK, Sep. 2010) – Symposium on Computational Geometry (SOCG), ACM (Snowbird, USA, June 2010) – Symposium on Theoretical Aspects of Computer Science (STACS) (Bordeaux, Feb. 2008) – Journées de Géométrie Algorithmique (Le Bessat, Jan. 2006) – ACM-SIAM Symposium on Discrete Algorithms (SODA) (Miami, USA, Jan. 2006) – Géométrie Algorithmique et Discrète (Paris, Oct. 2005) – Géométrie Algorithmique et Discrète (Marne-la-Vallée, Sep. 2004) – International Symposium on Graph Drawing (Perugia, Italy, Sep. 2003) – Journées Graphes et Algorithmes (Dijon, Apr. 2003) – IEEE Symposium on Foundations on Computer Science (FOCS) (Vancouver, Canada, Nov. 2002) – ECG workshop (Inria Sophia-Antipolis, Oct. 2002) – Journées de Géométrie Algorithmique (Obernai, Oct. 2002) – European Workshop on Computational Geometry (EuroCG) (Warsaw, Poland, Oct. 2002) – Journées de Géométrie Algorithmique (Masgrangeas, Oct. 2001) – ECG workshop (Leiden, Netherlands, Oct. 2001) – ARC "3D visibility" (Paris, Sep. 2001) – Canadian Conference on Computational Geometry (CCCG) (Waterloo, Canada, Aug. 2001) – Journées de Géométrie Algorithmique (Marseille, Oct. 2000) – ARC "Géométrica" (Paris, Feb. 2000)

Collaboration Projects

2018–2022	Local coordinator of the *SoS* project (*Structures on Surfaces*), funded by French *ANR* (National Research Agency) and Luxembourg. PIs: Monique Teillaud and Hugo Parlier
2012–2017	Participant of the *RDAM* project (*Algorithmic Techniques for Restricted Data Access Models*), funded by French *ANR* (National Research Agency). PI: Frédéric Magniez
2009–2010	PI, with Sergio Cabello, of a bilateral project *Algorithms for Graphs on Surfaces* (*Partenariat Hubert Curien*)
2007–2011	Participant of the *Triangles* project (*New Challenges in Triangulations*), funded by French *ANR*. PI: Olivier Devillers
2005–2008	Participant of the *GeoTopAl* project (*Topology, Differential Geometry, and Algorithms*), funded by *ANR*. PI: Frédéric Chazal
2005–2007	PI, with Jeff Erickson, of a project *Optimization Problems in Computational Topology*, funded by CNRS, INRIA, and University of Illinois at Urbana-Champaign
2000–2004	Participant of the European project *ECG* (*Effective Computational Geometry for Curves and Surfaces*)
1999–2000	Participant of the *ARC* project *Visibilité 3D*
1999–2000	Participant of the *ARC* project *Géométrica* (*Axiomatization of Geometric Algorithms*)

★
★ ★

Teaching

At Université Paris-Est Marne-la-Vallée:

| 2018–… | $\simeq$ 8 hours/year lectures in 5th-year level on "discrete aspects of systolic geometry" |
| 2016–… | 12 hours/year exercise session in 4th-year level on "complexity of problems" |

At ENS and/or within *Master Parisien de Recherche en Informatique* (MPRI):

| 2008–2017 | 12 hours/year lecture in 5th-year level on algorithms for graphs on surfaces |
| 2006–2008 | 20 hours/year exercise sessions on discrete and computational geometry (4th-year level) |

At University Paris 7:

2003–2004	28 hours exercise sessions on Unix and Automata at level *DEUG MIAS 2* (2nd-year level)
2002–2004	56 hours exercise sessions on Algorithms at level *Licence* (3rd-year level) of Computer Science
2002–2003	3 hours lecture on Computational Topology of Surfaces at level *DEA* (5th-year level) Algorithms
2002–2003	42 hours exercise and lab sessions in Mathematics at level *IUP 1* (1st-year level)
2001–2002	80 hours exercise and lab sessions in Computer Science at level *DEUG MIAS 1* (1st-year level)

Other:

| 2000–2001 | 47 hours oral exam in Mathematics for students in *classes préparatoires* (1st and 2nd-year level) in a private institute |
| 1998–1999 | 30 hours oral exam in Mathematics in *classes préparatoires MPSI* (1st-year level) |

Student and Post-Doc Supervision

2018–…	Galatée Hémery, Ph.D. student (co-advised with Xavier Goaoc)
2017–…	Thomas Magnard, Ph.D. student
2011–2014	Arnaud de Mesmay, Ph.D. student (co-advised with Jean Ponce in 2011–2012) [5, 6, 8, 26], now CNRS researcher at Gipsa-Lab, Grenoble

| 2015–2016 | Salman Parsa, post-doc [23], now post-doc at Sharif University of Technology, Tehran, Iran |
| 2012–2013 | Alfredo Hubard, post-doc [6], now assistant professor at LIGM, Université Paris-Est Marne-la-Vallée |

2018	Malavika Mukundan, *L3* 2-month internship, co-advised with Stéphane Sabourau
2017	Galatée Hémery, *M1* 4-month internship, co-advised with Xavier Goaoc
2017	Thomas Magnard, *M2'* (pre-doctoral) 4.5-month internship
2016	Thomas Magnard, *M2* (pre-doctoral) 4.5-month internship
2014	Stephen Kiazyk, Google Summer of Code, co-advised with Sébastien Loriot
2014	Marc de Visme, *M1* reading project in Mathematics, 5 months
2013	Nicholas Gaya, *M1* 2-month internship, co-advised with Claire Mathieu
2012	Ambroise Marigot, *M1* 2-month internship
2011	Arnaud de Mesmay, *M2* (pre-doctoral) 4.5-month internship
2011	Nicolás Matte Bon and Florent Urrutia, *M1* reading project in Mathematics, co-advised with Pierre Pansu, 5 months
2010	Alexandre Boulch, *M1* 5-month internship [9]
2010	Floriane Dardard and Damien Garreau, *M1* reading project in Mathematics, co-advised with Pierre Pansu, 5 months
2009	Nathanaël François and David Gontier, *M1* reading project in Mathematics, co-advised with Pierre Pansu, 5 months
2008	Preyas Popat, *L3* 2-month internship
2008	Arnaud de Mesmay and Michaël Monerau, *M1* reading project in Mathematics, co-advised with Pierre Pansu, 5 months
2007	Laurent Jouhet, *M2* (pre-doctoral) 5-month internship

| 2004–2016 | *Tuteur* (informal advisor) for a few students at ENS |

<div align="center">

★
★ ★

</div>

Team Responsibility

2018	Project manager for the extension of the Bézout Labex
2015–2016	Head of the Talgo research team at the CS dept. of ENS
2009–2012	Head of the GéCoaL research team at the CS dept. of ENS

Diploma Committees

Habilitation thesis committees: Daniel Gonçalves (Montpellier, 2018, reviewer), Cédric Bentz (Paris 6, 2017, reviewer), Matěj Stehlík (Grenoble, 2017, reviewer), Benjamin Lévêque (Grenoble, 2016), Lionel Pournin (Paris, 2013).

Ph.D. thesis committees: Valentin Garnero (Montpellier, 2016, reviewer), Mikhail Bogdanov (Nice, 2013), Guillaume Batog (Nancy, 2011), Nicolas Catusse (Marseille, 2011), Manuel Caroli (Nice, 2010), Jean-Marie Favreau (Clermont-Ferrand, 2009).

Qualification committee (after first year of Ph.D. program): Isaac Mabillard (IST Vienna, Austria, 2013).

Editorial Service in Journals and Conferences

Managing Editor for the *European Journal of Combinatorics* since 2012 (Executive Editor since 2016). In charge of the submission and refereeing process, in close cooperation with the two Editors in Chief.

Program Committee membership:

2017	European Workshop on Computational Geometry (EuroCG), Malmö, Sweden
2017	International Conference on Algorithms and Complexity (CIAC), Athens, Greece
2016	Symposium on Computational Geometry (SOCG), Boston
2015	International Colloquium on Automata, Languages, and Programming (ICALP), Kyoto, Japan
2015	European Workshop on Computational Geometry (EuroCG), Ljubljana, Slovenia
2011	Symposium on Computational Geometry (SOCG), ACM, Paris
2009	ACM-SIAM Symposium on Discrete Algorithms (SODA), New York
2008	Computational Topology in Image Context (CTIC), Poitiers

Referee for: Discrete & Computational Geometry (7) – Computational Geometry: Theory and Applications (7) – SIAM Journal on Computing (2) – Bulletin of the London Mathematical Society (1) – Journal of Differential Geometry (1) – Journal on Combinatorial Theory, Series B (1) – Algorithmica (1) – Journal of Computational Geometry (1) – Journal of Discrete Algorithms (1) – Discrete Optimization (1) – Electronic Journal of Combinatorics (1) – Graphs and Combinatorics (1) – Theory of Computing Systems (1) – Canadian Journal of Mathematics (1) – Computer Aided Geometric Design (1) – IEEE Transactions on Visualization and Computer Graphics (1) – book chapters (3)

External reviewer for: Symposium on Computational Geometry (SOCG), 2002, 2006, 2008, 2009, 2010, 2012, 2013, 2014, 2015 (16) – ACM-SIAM Symposium on Discrete Algorithms (SODA) 2007, 2010, 2011, 2012, 2013, 2015, 2018 (10) – Symposium on Theoretical Aspects of Computer Science (STACS) 2007, 2008, 2009, 2010 (6) – European Symposium on Algorithms (ESA) 2009, 2010, 2014 (4) – ACM Symposium on the Theory of Computing (STOC) 2014, 2015, 2018 (3) – IEEE Symposium on Foundations of Computer Science (FOCS) 2015, 2018 (2) – International Conference on Automata, Languages, and Programming (ICALP) 2016, 2018 (2) – International Symposium on Algorithms and Computation (ISAAC) 2014 (1) – Workshop on Graph-Theoretic Concepts in Computer Science (WG) 2017 (1) – International Symposium on Graph Drawing and Network Visualization (GD) 2017 (1) – International Symposium on Mathematical Foundations of Computer Science (MFCS) 2014 (1) – Conference on Real Numbers and Computers (RNC) 2006 (1) – Eurographics 2011 (1) – SIAM Conference on Geometric and Physical Modeling 2011 (1)

Evaluation of Submitted Research Projects

External reviewer for five projects submitted to *ANR* (National Research Agency), one project for the French Ministry of Foreign and European Affairs, and one project within a Labex.

Organization of Scientific Events

2018	Organization of a school *Low-Dimensional Geometry and Topology: Discrete and Algorithmic Aspects* in Paris (with Xavier Goaoc, Laurent Hauswirth, Alfredo Hubard, and Stéphane Sabourau)
2016	Organization of the *École de Printemps d'Informatique Théorique* in Marseille (with Gilles Schaeffer)
2015	Organisation a workshop *Computational Geometry in non-Euclidean spaces* in Nancy (with Jean-Marc Schlenker and Monique Teillaud)
2014–. . .	Organization of the *Discrete and Computational Geometry seminar* in Paris (with Xavier Goaoc and Michel Pocchiola; 20 talks per year)
2010	Organization of the *French Computational Geometry Week* in Marseille (with Boris Thibert)
2005	Organization at ENS of a workshop of the project *Optimization Problems in Computational Topology*

Various Committees

National committee:

2011–2015	Appointed member of the French *Conseil National des Universités*, section 27 (computer science), in charge of qualification and promotion of junior university professors

Hiring committees (Section 27):

2013	Member of the hiring committee of temporary researcher at ENS
2007–2017	(2007, 2009, 2011, 2017) Member of the hiring committee of assistant professor at University Nancy (1 and/or 2)
2011	Member of the hiring committee of assistant professor at École Polytechnique—CNRS
2010	Member of the hiring committee of assistant professor at ENS
2007	Member of the hiring committee of assistant professor at ENS (substitute)

Other local committees:

2017–. . .	Member of the committee of the Ph.D. theses of the doctoral school
2008–2016	Member of the laboratory committee of the CS department at ENS

Miscellaneous

2012–2016	Delegate of the CS department at ENS for the relations with the library
2009–2010	Examiner for entrance exams to ENS (Computer Science, written part)
2007–2016	Webmaster of `www.di.ens.fr`