

# Laurent Beaudou

Born in Bordeaux (France), 37 years old.

CONTACT INFORMATION	Laurent Beaudou Office S940 Pokrovskiy Bulvar, 11 Moscow RUSSIA	<a href="mailto:lbeaudou@hse.fr">lbeaudou@hse.fr</a> <a href="https://www.hse.ru/en/org/persons/237482889">https://www.hse.ru/en/org/persons/237482889</a>
CITIZENSHIP	French	
RESEARCH INTERESTS	Topological graph theory, Crossing number, Metric concepts in graphs, Coding theory, Lattice theory.	
POSITION	<b>Higher School of Economics</b> , Moscow, Russian Federation Associate professor <b>January 2019 to present</b> <ul style="list-style-type: none"><li>• Topic : Graph theory, data analysis</li></ul> <b>Polytech Clermont-Ferrand</b> , Clermont-Ferrand, France Associate professor <b>September 2010 to December 2018</b> <ul style="list-style-type: none"><li>• Topic : Graph theory, operationnal research</li></ul> <b>Université Bordeaux I</b> , Bordeaux, France Post-doctoral position <b>March 2010 to August 2010</b> <ul style="list-style-type: none"><li>• Topic : Graph theory, identifying code</li><li>• Hosts : Professors Ralf Klasing and André Raspaud</li></ul> <b>Université de Montréal</b> and <b>Concordia University</b> , Montreal, Canada Post-doctoral position <b>September 2009 to March 2010</b> <ul style="list-style-type: none"><li>• Topic : Discrete convexity, Graph theory</li><li>• Hosts : Professors Vašek Chvátal and Geña Hahn</li></ul>	
EDUCATION	<b>Université Clermont Auvergne</b> , Clermont-Ferrand, France HDR, Mathematics and Computer Science <b>December 2018</b> <ul style="list-style-type: none"><li>• Thesis Topic: Betweenness in graphs and lattices</li></ul> <b>Université Joseph Fourier</b> , Grenoble, France Ph.D., Mathematics and Computer Science <b>June 2009</b> <ul style="list-style-type: none"><li>• Thesis Topic: Graph embeddings</li><li>• Advisor: Professor Sylvain Gravier</li></ul> <b>Grenoble Institute of Technology</b> , Grenoble, France M.Sc., Operational Research and Combinatorics <b>June 2006</b> <ul style="list-style-type: none"><li>• Thesis Topic: Game of Clobber on <math>d</math>-dimensional grids</li><li>• Advisor: Professor Sylvain Gravier</li></ul>	

**École Normale Supérieure de Lyon**, Lyon, France

Agrégation de mathématiques **June 2005**

- Entrance examination to be a mathematics teacher in high school.
- Rank: 120

B.Sc., Fundamental computer science **June 2003**

SUPERVISING

Ph.D. students

- Simon Vilmin (2018 to present)
- Henri Perret du Cray (2014 to 2018)
- Kaoutar Ghazi (2013 to 2017)

Master students

- Tristan Benoît (2018)
- Guilherme Martino (2014)
- Alexandre Chaumet (2012)
- Thomas Picchetti (2012)

RESEARCH  
PROJECTS

Head of:

- *From Moore to Frankl* (M2F) supported by Région Auvergne, 2013–2016  
90 000 euros

Part of:

- ANR *HOGRA SI*, 2018-2021.
- ANR *DISTANCIA*, 2017-2020.
- ANR *GraphEn*, 2015-2019.
- ANR *GAG*, 2015-2019.
- PEPS *MISERE*, 2012–2014.
- PEPS *HOGRA SI*, 2012–2014.
- ANR *IDEA*, 2009–2012.

VISITING PERIODS

Visiting period **June 2017 to July 2017**

- Hosting insitution: Higher School of Economics, Moscow, Russian Federation.
- Host: Professor Sergei O. Kuznetsov

Visiting period **April 2017**

- Hosting insitution: Thompson River University, Kamloops, Canada.
- Host: Professor Rick Brewster

Visiting period **January 2017 to March 2017**

- Hosting insitution: Université de Montréal, Montreal, Canada.
- Host: Professor Geña Hahn

Visiting period **June 2016**

- Hosting insitution: Thompson River University, Kamloops, Canada.
- Host: Professor Rick Brewster

- Visiting period **April 2013**
- Hosting insitution: Concordia University, Montreal, Canada.
  - Host: Professor Vašek Chvátal
- Visiting period **May 2011**
- Hosting insitution: Concordia University, Montreal, Canada.
  - Host: Professor Vašek Chvátal
- Visiting period **February 2010**
- Hosting insitution: Universidad autónoma, San Luis Potosí, Mexico.
  - Host: Professor Gelasio Salazar
- Visiting period **April 2008 to November 2008**
- Hosting insitution: Université de Montréal, Montreal, Canada.
  - Host: Professor Geña Hahn.
- 3 months internship **May 2004 to August 2004**
- Hosting institution: Université de Montréal, Montreal, Canada.
  - Thesis topic: Cops and robbers game on graphs.
  - Advisor: Professor Geña Hahn
- 2 months internship **May 2003 to July 2003**
- Hosting institution: Université de Genève, Geneva, Switzerland.
  - Thesis topic: Search for busy beaver (Turing machines)
  - Advisor: Professor Grégory Lafitte

ADMINISTRATIVE  
TASKS

Organizer: Journées Graphes et Algorithmes 2012 (Clermont-Ferrand).

Program Committee: Journées Graphes et Algorithmes.

Referee for various scientific journals and conferences.

Head of AlCoLoCo seminar in Clermont-Ferrand (Topic ALgorithms, COmbinatorics, Logic and COmplexity)

TEACHING  
EXPERIENCE

**Higher School of Economics**, Moscow, Russian Federation.

*Social Networks Analysis*

**January 2019 to June 2019**

- Master students

**Polytech Clermont-Ferrand**, Clermont-Ferrand, France.

*Combinatorial Optimization*

**September 2010 to December 2018**

- Third year B.Sc. students, first and second year M.Sc students

*Databases*

**September 2011 to 2014**

- Third year B.Sc. students.

**Université Joseph Fourier**, Grenoble, France.

- |                                      |                                    |
|--------------------------------------|------------------------------------|
| <i>Programming methods</i>           | <b>September 2008 to June 2009</b> |
| • Second year B.Sc. students.        |                                    |
| <i>Algorithmic basics</i>            | <b>September 2006 to June 2008</b> |
| • First year B.Sc. students.         |                                    |
| <i>Algorithmic basics</i>            | <b>September 2005 to June 2006</b> |
| • Evening courses for slow students. |                                    |

**Other teaching experiences,**

- |   |                                     |
|---|-------------------------------------|
| <i>Linear Programming</i>                             | <b>June to July 2015</b>            |
| • Lectures for grad students                          |                                     |
| • University of Cape Coast, Ghana.                    |                                     |
| <i>Linear Programming</i>                             | <b>November 2009</b>                |
| • Lecture for Concordia grad students                 |                                     |
| • Montreal, Canada.                                   |                                     |
| <i>Constraint Programming</i>                         | <b>June 2007</b>                    |
| • Lectures for French Navy Officers                   |                                     |
| • Toulon, France.                                     |                                     |
| <i>Maple and algorithmics</i>                         | <b>September 2005 to March 2006</b> |
| • Students preparing engineering schools examinations |                                     |
| • Lectures and conception of exercices.               |                                     |

SELECTED RECENT  
PUBLICATIONS

- L. Beaudou, P. Dankelmann, F. Foucaud, M. A. Henning, A. Mary and A. Parreau  
Bounding the Order of a Graph Using Its Diameter and Metric Dimension: A Study  
Through Tree Decompositions and VC Dimension.  
*SIAM J. Discrete Math.* 32(2): 902-918 (2018)
- L. Beaudou, F. Foucaud and R. Naserasr  
Homomorphism bounds and edge-colourings of  $K_4$ -minor-free graphs.  
*J. Comb. Theory, Ser. B* 124: 128-164 (2017)
- L. Beaudou, A. Mary and L. Nourine  
Algorithms for  $k$ -meet-semidistributive lattices.  
*Theor. Comput. Sci.* 658: 391-398 (2017)
- L. Beaudou, A. Bondy, X. Chen, E. Chiniforooshan, M. Chudnovsky, V. Chvátal,  
N. Fraiman and Y. Zwols  
A De Bruijn-Erdős Theorem for Chordal Graphs.  
*Electr. J. Comb.* 22(1): P1.70 (2015)
- L. Beaudou, R. Naserasr and C. Tardif  
Homomorphisms of binary Cayley graphs.  
*Discrete Mathematics* 338(12): 2539-2544 (2015)

MATHEMATICAL  
EXPERTISE

Linear Programming  
Combinatorial Game Theory  
Complexity

Graph Theory  
Combinatorial Optimization  
Lattice Theory