

Laurent Beaudou

CONTACT INFORMATION	LIMOS D005 Complexe scientifique des Cézeaux 63173 Aubière – FRANCE	<i>Voice:</i> (+33)47-340-7358 <i>Fax:</i> (+33)47-340-7639 <i>E-mail:</i> labeaudo@univ-bpclermont.fr <i>WWW:</i> www.isima.fr/~beaudou/
CITIZENSHIP	French	
RESEARCH INTERESTS	Topological graph theory, Crossing number, Metric concepts in graphs, Coding theory.	
POSITION	Polytech' Clermont-Ferrand , Clermont-Ferrand, France Associate professor September 2010 to present <ul style="list-style-type: none">• Topic : Graph theory, operationnal research Université Bordeaux I , Bordeaux, France Post-doctoral position March 2010 to August 2010 <ul style="list-style-type: none">• Topic : Graph theory, identifying code• Hosts : Professors Ralf Klasing and André Raspaud Université de Montréal and Concordia University , Montreal, Canada Post-doctoral position September 2009 to March 2010 <ul style="list-style-type: none">• Topic : Discrete convexity, Graph theory• Hosts : Professors Vašek Chvátal and Geña Hahn	
EDUCATION	Université Joseph Fourier , Grenoble, France Ph.D., Mathematics and Computer Science June 2009 <ul style="list-style-type: none">• Thesis Topic: Graph embeddings• Advisor: Professor Sylvain Gravier Grenoble Institute of Technology , Grenoble, France M.Sc., Operational Research and Combinatorics June 2006 <ul style="list-style-type: none">• <i>Magna cum Laude</i>• Thesis Topic: Game of Clobber on d-dimensional grids• Advisor: Professor Sylvain Gravier Ecole Normale Supérieure de Lyon , Lyon, France Agrégation de mathématiques June 2005 <ul style="list-style-type: none">• Entrance examination to be a mathematics teacher in high school.• Rank: 120 B.Sc., Fundamental computer science June 2003 <ul style="list-style-type: none">• Courses taken: Algorithmics, Programming, Complexity, Graph Theory, Computability, Calculus among others.	

VISITING PERIODS

Visiting period **2 - 10 June 2011**

- Hosting institution: Concordia University, Montreal, Canada.
- Host: Professor Vašek Chvaátal

Visiting period **1 - 6 February 2010**

- Hosting institution: Universidad autónoma, San Luis Potosí, Mexico.
- Host: Professor Gelasio Salazar

Visiting period **April 2008 to November 2008**

- Hosting institution: 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

TEACHING EXPERIENCE

Polytech' Clermont-Ferrand, Clermont-Ferrand, France.

Combinatorial Optimization **September 2010 to present**

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

Databases **September 2011 to present**

- Third year B.Sc. students.

Université Joseph Fourier, Grenoble, France.

Programming methods **September 2008 to June 2009**

- Second year B.Sc. students.
- Responsible of the whole course.

Algorithmic basics **September 2006 to June 2008**

- First year B.Sc. students.
- Lectures, marking and conception of homeworks.

Algorithmic basics **September 2005 to June 2006**

- Evening courses for slow students.

Other teaching experiences,

Linear Programming **November 2009**

- Lecture for Concordia grad students
- Montreal, Canada.

Constraint Programming **June 2007**

- Lectures for French Navy Officers

- Toulon, France.

Maple and algorithmics

September 2005 to March 2006

- Students preparing engineering schools examinations
- Lectures and conception of exercices.

PUBLICATIONS

L. Beaudou, S. Gravier and K. Meslem.

Isometric embedding of subdivided complete graphs in the hypercube.

SIAM J. Discrete Math. Volume 22 (2008), pp 1226–1238. doi:10.1137/070681909.

L. Beaudou, S. Gravier and K. Meslem.

Subdivided graphs as isometric subgraphs of Hamming graphs.

European J. Combin. Volume 30 (2009), pp 1062–1238. doi:10.1016/j.ejc.2008.09.011.

L. Beaudou, P. Dorbec, S. Gravier and P.K. Jha.

On planarity of direct product of multipartite complete graphs.

Discrete Math. Algorithms Appl., Volume 1 (2009), pp 85–104. doi:10.1142/S179383090900004X

L. Beaudou, A. Gerbaud, R. Grappe and F. Palesi.

Drawing disconnected graphs on the Klein bottle.

Graphs Combin., Volume 26 (2010), pp 471–481. doi:10.1007/s00373-010-0928-7

L. Beaudou.

Se repérer sans occuper trop d'espace. (Popularization)

Repres et Espace(s). De la pluralité la polysémie, sous la direction de Barbara Aiosa, Faza Nat-Bouda et Marie Thvenon, Presses universitaires de Grenoble (2010)

L. Beaudou, S. Gravier, S. Klavžar, M. Kovše and M. Mollard.

Covering codes in Sierpiński graphs.

Discrete Math. Theor. Comput. Sci., Volume 12 (2010), pp63–74.

L. Beaudou and D. Bokal.

On the sharpness of some results relating cuts and crossing numbers.

Electron. J. Combin., Volume 17 (2010), #R96.

L. Beaudou, É. Duchêne and S. Gravier.

A survey about Solitaire Clobber.

To appear in *Games of No Chance 4* (book).

L. Beaudou, R. Grappe and G. Hahn.

Gathering information in a graph.

To appear in *J. Combin. Math. Combin. Comput.*

TALKS

International conferences

The lattice of all betweenness relations.

Concept Lattices and Applications, Fuengirola (Spain), October 2012.

Making non-planar graphs crossing critical.

8th French Combinatorial Conference, Orsay (France) June 2010.

Drawing disconnected graphs on the Klein bottle.

20th Workshop on Topological Graph Theory (TGT20), Yokohama (Japan), November 2008.

Subdivided graphs as isometric subgraphs of Hamming graphs.
SIAM Conference on Discrete Mathematics, Burlington (Vermont, USA), June 2008.

Planarity of Kronecker product of complete graphs
Carleton Graph Theory Workshop, Ottawa (Canada), May 2008.

Isometric embeddings of subdivided complete graphs in the hypercube.
Eurcomb'07, Sevilla (Spain), September 2007.

Isometric embeddings of subdivided complete graphs in the hypercube.
6th Slovenian International Conference on Graph Theory, Bled (Slovenia), June 2007.

Cheminement dans les grilles : Clobber et autres problèmes.
Conférence conjointe FRANCORO V / ROADEF 2007, Grenoble, February 2007.

National conferences

Garder ses repères sans occuper trop d'espace.
Colloque pluridisciplinaire : repères et espace(s), Grenoble, April 2009.

Deux graphes sur la bouteille de Klein.
10èmes Journées Graphes et Algorithmes, Sophia Antipolis, November 2008.

Plongements isométriques de cliques subdivisées dans les hypercubes.
9èmes Journées Graphes et Algorithmes, Paris, November 2007.

Le jeu de Clobber sur les grilles de dimension d .
8èmes Journées Graphes et Algorithmes, Orléans, November 2006.

Seminars

Homomorphismes de graphes.
Séminaire du LIRMM, June 2011.

Autour des crossing-critical graphs Journées ANR GRATOS, December 2010.

Problèmes canadiens.
Journées Maths à Modeler, November 2010.

Plongements isométriques.
Séminaire AICoLoCo, Université Clermont II, October 2010.

Problems from the cold.
GT Graphes et Applications, LaBRI, Université Bordeaux I, April 2010.

Collecting information fast.
Séminaires du LITQ, Université de Montréal, September 2009.

Plongements en théorie des graphes.
Séminaires du LITQ, Université de Montréal, May 2008.

Isometric embeddings / Middle levels problem.
ConCoCO seminar, Concordia University, Montreal, April-May 2008.

Graphs on Surfaces : Chapter 1.
Gr. de Travail Graphes et Surfaces de l'Institut Fourier, January 2008.

Introduction à la théorie des jeux combinatoires.
Semaine sport-étude des MIM de l'ENS Lyon, January 2008.

Cubes partiels et joyeuseries.
Séminaire Compréhensible de l'Institut Fourier, December 2007.

Des cycles disjoints dans les graphes eulériens.
Gr. de Travail Graphes et Surfaces de l'Institut Fourier, December 2007.

TECHNICAL SKILLS Programming: ADA, C, C++, Matlab, Maple, PHP, HTML, UNIX shell scripting, CVS, CPLEX, OCaml.

Applications: $\text{T}_{\text{E}}\text{X}$, $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$, $\text{BIB}\text{T}_{\text{E}}\text{X}$, Microsoft Office, and other common productivity packages for Windows, OS X, and Linux platforms

Operating Systems: Microsoft Windows Vista/XP/2000, Apple OS X, Linux, Solaris, and other UNIX variants

MATHEMATICAL EXPERTISE Linear Programming

Graph Theory

Optimization, Scheduling

Game Theory

Complexity