
Jean-Loup Guillaume

Contact details

Professional address: Université de La Rochelle, Pôle Sciences et Technologie
 Laboratoire L3i,
 Avenue Michel Crépeau
 17042 La Rochelle cedex 1 FRANCE
 E-mail: jean-loup.guillaume@univ-lr.fr
 Web page: <http://jlguillaume.free.fr/www/>

Education and Professional Experience

- Since 10/2014** **L3i – Université de la Rochelle** **La Rochelle, France**
 Full professor in Computer Science, Laboratoire Laboratoire Informatique, Image et Interaction
- 09/2007-09/2014** **LIP6 – Université Pierre et Marie Curie (Paris 6)** **Paris, France**
 Associate professor in Computer Science, Complex Networks team.
 « **Habilitation à diriger les recherches** » in computer science - 19/11/2012. « Déterminisme et non-déterminisme au service de la détection de communautés dynamiques ». Committee: N. Hanusse, B. Jouve, P. Van Dooren, J. Gustedt, J.-F. Marcotorchino, M. Soria and E. Viennet.
- 11/2006-08/2007** **INMA – Université Catholique de Louvain** **Louvain-la-Neuve, Belgium**
 Postdoc (10 months), supervised by Vincent D. Blondel.
 Subject: Diffusion and communities in large networks.
- 08/2006-10/2006** **ARES Project – INRIA Rhône-Alpes** **Lyon, France**
 Postdoc (3 months), supervised by Eric Fleury.
 Subject: Dynamics of contacts in sensor networks.
- 12/2004-05/2006** **France Télécom R&D** **Issy-les-Moulineaux, France**
 Postdoctoral (18 months), supervised by Houssein Assadi.
 Subject: Diffusion of innovations in communication networks.
- 2001-2004** **LIAFA – Université Denis Diderot (Paris 7)** **Paris, France**
 Ph.D. candidate in computer science, supervised by Matthieu Latapy.
 Ph.D. in computer science - 20/12/2004. « Analyse statistique et modélisation des grands réseaux d'interaction ». Committee: S. Boucheron, S. Fdida, E. Fleury, P. Fraigniaud, M. Habib and M. Latapy.
- 2000-2001** **ENS Cachan** **Paris, France**
 Pre-doctorate diploma (DEA) in Algorithmic, supervised by Michel Morvan and Laurent Viennot.
- 06/2000** **ENS Cachan** **Cachan, France**
 Admitted as a 3rd year student in the "Ecole Normale Supérieure de Cachan", computer science dept.
- 1998-2000** **ENSEEIH** **Toulouse, France**
 Student at the ENSEEIH Engineering school. Two years computer science cursus. Graduated with honors.
- 1994-1998** **Université Bordeaux I** **Bordeaux, France**
 Master's degree in computer science. Graduated with honors.

Distinctions

- 11/2015-...** **Owner of PEDR**
- 10/2011-09/2014** **Owner of the *pedagogic investment prize*.**
- 10/2009-09/2014** **Owner of the *research investment prize*.**

Scientific animation

Participation in funded projects

In progress

- 2018-2020: Member of the SAIL ANR labcom (Sequential Art Image Laboratory), L3i – actualuna.
- 2017-2020: Member of Regional project ANIMOnS (AppreNtissage Interactif d'indexes inter-MOdaux sémantiques d'images médiévales), L3i – XLIM – LaBRI – IMS – CESC.M.
- 2016-2018: Member of the FEDER project Gedycrism (Dynamic management of crisis and major risks), L3i – Systel.

Former projects

- 2014-2017: **Project leader** of CODDDE (Evolving communities, Diffusion and Event Detection) – ANR CONTINT, LIP6 – LIP – linfluence.2014-2017: REQUEST (REcursive QUERY and Scalable Technologies) – 3rd call FSN « Informatique en nuage - Cloud computing ».
- 2014-2017: **French side leader** of Indo-French project with IIT Kharagpur (CNeRG). CEFIPRA Targeted Program.
- 2011-2014: CLEAR lab (Centre for Learning and Retrieval) UPMC–Thales.
- 2011-03/2014: DYNGRAPH (Dynamics of Graph Topologies) – ANR JCJC.
- 2008-2012: LIP6 cluster – Project leader – BQR Equipment UPMC.
- 2010-2011: DyVi (Large graphs visualization) – ARC INRIA.
- 2008-2010: WEBFLUENCE (Opinion dynamics in virtual arenas: topology, morphogenesis and diffusion) – ANR SYSCOMM.
- 2008-2010: FRAGRANCE (Filtering, Retrieval and Tagging in Social Interaction Graphs) – ANR CONTINT.
- 2007-2010: MAPE (Maps of paedophile activity) – ANR TCOM.
- 2007-2009: MAPAP (Measurement and Analysis of P2P activity Against Paedophile content) – Safer Internet Plus Program (European union) SIP-2006-PP-221003.
- 2004-2007: METROSEC (Metrology for Security and QoS) – ACI Sécurité et Informatique.

Scientific responsibilities

Management activities

- 2016-...: Elected member of the Education Council (CFVU), Université de la Rochelle
- 2015-...: Member of the RESCOM Committee.
- 2014-...: L3i Scientific guide, interactivity and system dynamics research theme until 06/2016, Formal models theme since.
- 2014-2017: **Leader of the RNSC** (National Network on Complex Systems) – 6 partners (IRSTEA, CIRAD, IFREMER, INRA, INRIA, IRD) and 1025 researchers involved.
- 2012-2014: Member of the CNU (Conseil National des Universités) 27th section.
- 2011-2014: Member of the laboratory council of LIP6.
- 2007-2009: Associated researcher of the Université Catholique de Louvain.

PC Member

- 2014-2019: Intl Conf. on Research Challenges in Information Science (RCIS) – Morocco'14 (conf + doctoral consortium), Greece'15, France'16, UK'17, France'18, Belgium'19.
- 2015-2016, 2018: World Wide Web Conference (WWW), Italy'15 (poster track), Canada'16 (poster track), France'18 (MATNet workshop).
- 2011, 2016, 2018 : Francophone conference on algorithmic aspects of telecommunications (Algotel).
- 2016-2018: Intl. Conf. on Complexity, Future Information Systems and Risk (Complexis) – Italy'16, Portugal'17, Portugal'18.
- 2017: **co-chair** of the “social networking workshop” in conjunction with COMSNETS – India.
- 2016-2017: Intl. Conf. on Complex Networks and their Applications (Complex Networks) – Italy'16, France'17.
- 2016-2017: Intl. wksp. on Dynamics in Networks (DyNo) – USA'16, Macedonia'17.

- 2012-2017: Conference on Complex Networks (CompleNet) – Florida'12, Berlin'13, Bologna'14, New York'15, France'16, Croatia'17.
- 2016: 4th Intl. wksp. on Big Data and Social Networking Management and Security (BDSN) – Spain.
- 2016: IEEE Workshop on Network Science for Communication Networks (NetSciCom) in conjunction with IEEE INFOCOM 2016.
- 2016: 6th Intl. Conf. on Web Intelligence, Mining and Semantics (WIMS'16).
- 2014-2016: Intl Conf. on Computational Aspects of Social Networks (CASoN) – Portugal'14, South Africa'15, India'16.
- 2012-2016: Conférence sur les modèles et l'analyse des réseaux (MARAMI).
- 2015: **PC chair** of MARAMI 2015.
- 2012-2015: SITIS satellite Workshop on Complex Networks and their Applications.
- 2014: PC of Rescom Thematic school on "network science" – Furiani, France.
- 2014: Extraction et Gestion de Connaissances (AFGG-EGC) – Rennes, France.
- 2013: Intl Conf. on Computer Systems and Applications (AICCSA) – Fes, Morocco.
- 2009: Intl Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS Mobility and Dynamic Networks satellite workshop) – Lyon, France.

Reviewer or evaluation activities

- Regular reviewer for many journals : SNAM, Social Science Research, Transactions on Mobile Computing, Computer Networks, IJWBC, JDIR, JNCA, JSTAT, KAIS, Physica A, PLoS ONE, The Computer Journal, Transactions on Mobile Computing, Computational Intelligence.
- 2018: member of selection committee for a full professor in CS, LIRIS – INSA, Lyon.
- 2018: member of ANR CE23 (Big Data) evaluation committee.
- 2016-2018: Evaluations for the HCERES (members of 1-2 committee/year + external evaluations)
- 2015-2017: Evaluations for the ANR, generic and JCJ call.
- 2014: Evaluation of one project from CNRS-INRIA-CEFIPRA 2014 Info-French Program.
- 2014: Evaluation of the Yachay University project (teaching and research activities), Ecuador.
- 2013: Evaluations of FNRS projects, Belgium.
- 2012: Evaluation of CRA (Concerted Research Actions), Belgium.

Publications

- 15 international journals.
- 19 international conferences and 12 international workshops with proceedings.
- 2 invited papers in international conferences.
- 8 book chapters (including 4 in French).
- 1 national journal, 14 national conferences and 3 national workshops.
- 1 popular work.

Invited Talks

Invited talks in international conference or workshops

- Data Science Spring School (2017 – Tianjin, China)
- Machine Learning and Complex Networks school and workshop (2015 – Kharagpur, India).
- Dynamics on and of complex networks III (2009 – UK).
- Workshop Detection and visualization of communities in large complex networks (2008 – Belgium).
- NATO workshop Mining Massive Data Sets for Security (2007 – Italy).
- 12th CTN Wksp Network & Coalition Formation among Heterogeneous Agents (2007 – Belgium).
- Cosin conference (2003 – Italy).

Invited talks in national thematic schools or conferences

- Thematic school RESEM "Etudier les réseaux sociaux : espaces, mobilités" (09/2015 - Oléron)
- 22èmes rencontres de la Société Francophone de Classification (09/2015 – Nantes).
- Interdisciplinary program MOREHIST (06/2015 – Toulouse).
- GDR RO thematic day "Optimization in Complex Networks" (11/2014 – Paris).
- Workshop "Social Network Analysis in Animal Societies" (07/2013 – Strasbourg).
- Thematic school on complex systems (10/2012 – RISC-E Rennes).
- Thematic day on graph dynamics (07/2012 – ISC-PIF Paris).

- French Complex Systems Summer School (10/2011 – Paris).
- ResCom thematic school (06/2011 – La Palmyre).
- Journée Soc. Fr. de Statistiques : Réseaux sociaux, analyse et data mining (02/2010 – Paris).
- Journées Franciliennes de Recherche Opérationnelle (2006 – Paris).

Invited talks in seminars outside France

- Seminar of the research group “Large Graphs and Networks”, UCL (2006, 2007, 2008 – Belgium).
- Seminar of the Centre for Systems Engineering and Applied Mechanics (2007 – Belgium).
- Seminar “Dipartimento di Informatica e Sistemistica” (2006 – Italy).
- Cost 295 Dynamo meeting (2005 – Poland).

Invited talks in seminars in France (a selection)

- LIG/AMA (2014), LaBRI/MaBioVis (2014), LERIA (2014), LINA (2014), LaBRI (2013), IRISA (2013), CITI Labs (2013) L3i (2010), LIP6/NPA (2005 & 2007), LORIA/Madynes (2007), CITI (2006), Labri/Algorithmique distribuée (2006), IGM (2003), etc.

Ph.D. and HDR Defense Committee

- Didier Henry (Univ. des Antilles) – evaluation – 12/2018
- Sabrina Mallek (Univ. D’Artois & Univ. De Tunis) – president of the committee – 07/2018
- Antoine Hinge (Univ. de Bordeaux) – evaluation – 06/2018
- Koustav Rudra (CnerG – IIT Kharagpur – India) – evaluation – 01/2018
- Mael Canu (UPMC – LIP6) – evaluation – 12/2017
- Valeria Romano (IPHC Strasbourg) – evaluation – 09/2017
- Matteo Morini (ENS Lyon) – evaluation – 09/2017
- Jean-François Viaud (Univ. La Rochelle) – committee member – 08/2017
- HDR – Mauro Sozio (TelecomParisTech) – evaluation – 07/2017
- Oana Balalau (TelecomParisTech) – evaluation – 05/2017
- Junaid Ahmed Khan (Univ. Marne la Vallée) – evaluation – 10/2016
- Noé Gaumont (UPMC – LIP6) – committee member – 10/2016
- Claire Lagesse (Univ. Paris Diderot) – committee member – 10/2015
- Fragkiskos Malliaros (Ecole Polytechnique) – evaluation – 09/2015
- Lucie Martinet (ENS de Lyon) – evaluation – 09/2015
- Mahdi Meslmawy (Univ. Le Havre) – evaluation – 09/2015
- Nicolas Dugué (Université d’Orléans) – evaluation – 06/2015
- The Dang Huynh (INRIA-Rocquencourt) – evaluation – 06/2015
- Blaise Ngonmang (Univ. Paris 13 – L2TI) – evaluation – 11/2014
- Nicolas Tremblay (ENS Lyon) – evaluation – 10/2014
- Patricia Condé Cespedes (UPMC - LSTA) – committee member – 12/2013
- Olivier Gach (Univ. Angers – LERIA) – evaluation – 12/2013
- Yann Jacob (UPMC – LIP6) – president of the committee – 09/2013
- Rémy Cazabet (Univ. Toulouse 1 – IRIT) – evaluation – 03/2013
- Mauricio Soto (Univ. Paris Diderot – LIAFA) – committee member – 12/2011
- Cristobald de Kerchove (Univ. Catholique de Louvain, INMA) – evaluation – 08/2009
- Middle term Ph.D. defense: Mael Canu (UPMC – LIP6, 12/2014), Blaise Ngonmang (Univ. Paris 13 – L2TI, 04/2013), The Anh Dang (Univ. Paris 13 – L2TI, 03/2012), John Whitbeck (UPMC – LIP6, 10/2010)

Organization tasks

- 2017: Organizing chair of Marami 2017 – La Rochelle, 10/2017.
- 2014: Co-Organizer of Marami 2014 – Paris, 10/2014.
- 2005: Co-Organizer of Algotel 2005 – Presqu’île de Giens, France, 05/2005.
- 2005: Co-Organizer and member of the scientific committee of the school on complex networks. – Paris, France, 04/2005.
- 2004: Co-Organizer of the thematic symposium on social networks of the Internet – Paris, France.
- 2004: Co-Organizer of the first national conf on Graphs, Networks and Modeling – Paris, France.
- 2002-2004: Local organizer of the Graphs, Networks and Modeling seminar.
- 2001: Co-Organizer of the One day conference on dynamics graphs and Web graph – Paris, France.

Teaching and students

Since 10/2014: Full Professor at ULR

- Head of the ICONE master's degree in computer science, University of La Rochelle since 09/2015.

Course responsibilities are greyed.

2015-2016 (PR)	Université de La Rochelle	La Rochelle, France
L1	CS and Internet certificate	45h (tp)
DUT2-IUT	Web development – rich client	44h (class work + tp)
L2 info	Introduction to Databases	40,5h (course + class work + tp)
L3 info	Databases	40,5h (course + class work + tp)
LPro IUT	Web development	8h (course + tp)
LPro IUT	Technology watch	6h (management)
L3 - IAE	Databases	49,5h (course + tp)
M2 Icone	Initiation to research	3h (course)

2014-2015 (PR)	Université de La Rochelle	La Rochelle, France
L1	CS and Internet certificate	45h (tp)
DUT2-IUT	Web development – rich client	44h (class work + tp)
L2 info	Introduction to Databases	40,5h (course + class work + tp)
LPro IUT	Web development	8h (course + tp)
LPro IUT	Technology watch	6h (management)
L3 - IAE	Databases	49,5h (course + tp)
M2 Icone	Initiation to research	3h (course)

2007-2014: associate professor at UPMC

- Head of the L2 ATIC (Applications des Technologies de l'Information et de la Communication) – second semester 2010-2011.
- 2008-2014: member of the selection committee for the “Networks Master” UPMC (~100 applications to evaluate per committee member every year).
- 2012-2014: member on the habilitation committee for the master of Computer Science, UPMC.

Courses responsibilities are indicated by a grey overline

2013-2014 (MCF)	Université Pierre et Marie Curie	Paris, France
L1	Recursive programming	43,5h (class work + tp)
L2-ATIC	Application development	42h (course + management)
L2-ATIC	Web development	84h (course + class work + tp)
L2-ATIC	Fellow management	16h (management)
L3-DANT	New technologies for the web	37h (course + tp)
L3-DANT	Project + fellowship management	10h (management)
M2	Recommendation and social networks	0h (management)

2012-2013	Université Pierre et Marie Curie	Paris, France
L2-PRO	Application development	28h (course + management)
L2-PRO	Web development	21h (course + class work + tp)
L2-PRO	Fellow management	10h (management)
L3	Networks	45h (class work + tp)
L3-DANT	New technologies for the web	72h (course + tp)
L3-DANT	Project + fellowship management	28h (management)
M2	Group work	28h (class work)
M2	Recommendation and social networks	0h (courses + tp)

2011-2012		Université Pierre et Marie Curie	Paris, France
L2-PRO	Application development	33h (course + management)	
L2-PRO	Web development	72h (course + class work + tp)	
L2-PRO	Fellow management	15h (management)	
L3	Networks	45h (class work+tp)	
L3-DANT	New technologies for the web	10h (course + tp)	
M2	Recommendation and social networks	14h (courses + tp)	

2010-2011		Université Pierre et Marie Curie	Paris, France
L2-PRO	Head of formation	(eq. 16h)	
L2-PRO	Application development	18,5h (course + management)	
L2-PRO	Web development	18h (course)	
L2-PRO	Fellow management	18h (management)	
L3	Networks	43h (class work+tp)	
L3-DANT	Project + fellowship management	6h (management)	
L3-DANT	New technologies for the web	70h (course + tp)	
M1	Networking projects	33h (management)	
M2	Recommendation and social networks	14h (courses + tp)	

2009-2010		Université Pierre et Marie Curie	Paris, France
L2-PRO	Web development	18h (course)	
L3	Networks	44,25h (class work+tp)	
L3-DANT	Project + fellowship management	54h (management)	
L3-DANT	New technologies for the web	70h (course + tp)	
M2	Multimedia applications	8h (course)	
M2	Fellow management (Stage pro)	18h (management)	
M2	Recommendation and social networks	10h (courses + tp)	

2008-2009		Université Pierre et Marie Curie	Paris, France
L2	Ocaml project	20h (class work)	
L3	Introduction to networks	44,25h (class work+tp)	
L3-DANT	Project + fellowship management	50h (management)	
M1	Networking projects	33h (management)	
M2	Multimedia and Qos	75h (class work) – including 35h in Vietnam	
M2	Multimedia applications	35h (course + class work)	
M2	Fellow management (Stage pro)	10h (management)	

2007-2008		Université Pierre et Marie Curie	Paris, France
L3	Introduction to networks	45h (class work + pw)	
L3 Pro	Project + fellowship management	40h (management)	
M1	Networking projects	33h (management)	
M2	Multimedia and Qos	40h (class work)	
M2	Multimedia applications	35h (cours + class work)	
M2	Fellow management (Projet de synthèse)	11h (management)	
M2	Fellow management (Stage pro)	18h (management)	

2006-2007: postdoctoral fellow

2007		Université Catholique de Louvain	Louvain-la-Neuve, Belgium
L2-L3-M1	Graph theory	18h (class work+management)	

2006		Université Catholique de Louvain	Louvain-la-Neuve, Belgium
L2	Graph theory	10h (class work)	

2002-2005: Ph.D. student

2005	Université Denis Diderot	Paris, France
M1	OS, networks and Internet	30h (course+class work)
2004-2005	Université Denis Diderot	Paris, France
L3	Algorithmics	50h (class work+tp)
M1	Fellow management	14h
2003-2004	Université Denis Diderot	Paris, France
L2	Java programming	50h (class work+tp)
M1	Fellow management	14h
2002-2003	Université Denis Diderot	Paris, France
L2	Unix and automaton	64h (class work+tp)

Ph.D. students

Since 12/2016.

Noudéhouéno Houssou: Co-advisor (50%) with A. Prigent. Analysis and modeling of user trajectories in real systems.

Since 01/2016

Thanh hoa Nguyen: Co-advisor (50%) with M. Coustaty. Segmenting characteristics elements of documents with graphs of communities.

Since 09/2014

Raphael Tackx: Co-advisor (30%) with F. Tarissan. Analysis and modeling of the multipartite structure of complex networks.

Since 06/2012

Damien Noguez: Co-advisor (40%) with J.-F. Marcotorchino. Contextual analysis of logs to optimize the detection of security anomalies in IT networks.

2011-2015 (defense 15/06/2015)

Maximilien Danisch: Co-advisor (50%) with B. Le Grand: Ego centered community structure in complex networks.

2011-2014

Alice Albano: Co-advisor (50%) with B. Le Grand. Complex networks dynamics: an analysis in extrinsic time.

2009-2012

Massoud Seifi: Co-advisor (80%) with M. Latapy. Multi-scale analysis and visualization of complex networks.

2008-2011

Thomas Aynaud: Co-advisor (80%) with M. Latapy. Community detection in evolving networks.

Postdoctoral fellows

2017-2018 Roberto Interdonato (ULR): social media mining for crisis management and event detection.

2014-2015 (3m) Alice Albano (UPMC): conception of a software for the simulation of diffusion on evolving networks.

2014 Yann Jacob (UPMC in collaboration with Univ Paris 1 and Rexel): Client and products segmentation.

2013-2014 François Queyroi (UPMC): Link streams for evolving community detection.

2012-2013 Romain Campigotto (UPMC): Community detection.

Master 2 Interns

2014 Issam Bani (UPMC): Analysis of learning and interaction traces in a MOOC.

2014 Raphael Tackx (UPMC): Bipartite networks and communities.

- 2014** Marine Levé (UPMC and Univ. Strasbourg): Leadership and influence in wild horse herds.
- 2011** Alice Albano (UPMC): Modeling and simulation of diffusion processes in evolving networks.
- 2008** Massoud Seifi (UPMC): Multi-scale visualization of complex networks.
- 2008** Thomas Aynaud (UPMC): Multi-scale study of complex networks.
- 2007** Etienne Lefebvre (Université Catholique de Louvain): Community detection in complex networks.

Master 1 Interns or equivalent

- 2009** Co-advisor of a group of 3 students (UPMC): Capture of P2P traces.
- 2004** Stevens le-Blond (M1 Epitech): Measurements of P2P networks.
- 2004** Samuel Leboeuf (M1 Polytech Grenoble), Jérôme Wrede (M1 ENS de Lyon): Complex networks modeling.
- 2001-2004** 23 M1 students during TER/initiation to research (Univ. P7).

Publication List

International journal with referring process (15)

- [1] Easy-Mention: A model driven mention recommendation heuristic to boost your tweet Popularity.**
Soumajit Pramanik, Mohit Sharma, Maximilien Danisch, Qinna Wang, Jean-Loup Guillaume, Bivas Mitra.
International Journal of Data Science and Analytics (2018), pp1-17, <https://doi.org/10.1007/s41060-018-0121-2>.
- [2] Modeling Cascade Formation in Twitter amidst Mentions and Retweets.**
Soumajit Pramanik, Qinna Wang, Maximilien Danisch, Jean-Loup Guillaume, Bivas Mitra.
Social Network Analysis and Mining 7(1): 41:1-41:18 (2017).
- [3] The Power of Consensus: Random Graphs Still Have No Communities.**
Romain Campigotto and Jean-Loup Guillaume.
Lecture Notes in Social Networks 2014, pp 145-164.
- [4] Studying Graph Dynamics Through Intrinsic Time Based Diffusion Analysis.**
Alice Albano, Jean-Loup Guillaume, Sébastien Heymann, Bénédicte Le Grand.
Lecture Notes in Social Networks, may 2015. pp 103-124.
- [5] Multi-egocentered communities in practice.**
Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.
Social Network Analysis and Mining Journal, 4:180, 2014.
- [6] Towards multi-ego-centered communities: a node similarity approach.**
Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.
International Journal of Web Based Communities, 2013, Vol. 9, No. 3, pp.299-322.
- [7] Impact of Random Failures and Attacks on Poisson and Power-Law Random Networks.**
Clémence Magnien, Matthieu Latapy, Jean-Loup Guillaume.
ACM Computing surveys, volume 43, issue 3, april 2011.
- [8] Fast unfolding of communities in large networks.**
Vincent D. Blondel, Jean-Loup Guillaume, Renaud Lambiotte, Etienne Lefebvre.
Journal of Statistical Mechanics: Theory and Experiments (2008) P10008.
- [9] Description and simulation of dynamic mobility networks.**
Antoine Scherrer, Pierre Borgnat, Eric Fleury, Jean-Loup Guillaume, Céline Robardet.
Computer Networks 52 (2008), pages 2842-2858.
- [10] Local leaders in random networks.**
Vincent D. Blondel, Jean-Loup Guillaume, Julien M. Hendrickx, Cristobald de Kerchove, Renaud Lambiotte.
Physical Review E 77, 036114 (2008).
- [11] Distance distribution in random graphs and application to network exploration.**
Vincent D. Blondel, Jean-Loup Guillaume, Julien M. Hendrickx, Raphael Jungers.
Physical Review E 76, 066101 (2007).
- [12] Bipartite graphs as models of complex networks.**
Jean-Loup Guillaume, Matthieu Latapy.
Physica A 371 (2006) 795-813.
- [13] Relevance of Massively Distributed Explorations of the Internet Topology: Qualitative Results.**
Jean-Loup Guillaume, Matthieu Latapy, Damien Magoni.
Computer Networks, Volume 50 (2006), Issue 16, pages 3197-3224.
- [14] Complex Network Metrology.**
Jean-Loup Guillaume, Matthieu Latapy.
Complex Systems, Volume 16 (2005), pages 83-94.

[15] Bipartite Structure of all Complex Networks.

Jean-Loup Guillaume, Matthieu Latapy.

Information Processing Letters (IPL), Volume 90 (2004), Issue 5, Pages 215-221.

Contributed chapters in collective books (8)

[16] Etude des réseaux sociaux dynamiques ou temporels (in french).

Daniel, Charbonneau, Sébastien Sosa, Cristian Pasquaretta, J.L. Guillaume.

Analyse des réseaux sociaux appliquée à l'éthologie et l'écologie, Editions Matériologiques, 2015.

[17] Modélisation des réseaux sociaux (in french).

Cédric Sueur, Nicolas Perony, Frédéric Amblard, J.L. Guillaume.

Analyse des réseaux sociaux appliquée à l'éthologie et l'écologie, Editions Matériologiques, 2015.

[18] Multi-ego-centred communities

Maximilien Danisch, Jean-Loup Guillaume and Bénédicte Le Grand

« Complex Networks and their Applications », Cambridge Scholars Publishing, pp 76-111.

[19] Communities in evolving networks: definitions, detection and analysis techniques.

Thomas Aynaud, Jean-Loup Guillaume, Eric Fleury, Qinna Wang.

In « Dynamics On and Of Complex Networks », Volume 2, 159-200. 2013.

[20] Multilevel local optimization of modularity.

Thomas Aynaud, Vincent Blondel, Jean-Loup Guillaume, Renaud Lambiotte.

In « Graph Partitioning », Charles-Edmond Bichot, Patrick Siarry (Eds). WILEY & ISTE. 2011.

[21] Optimisation locale multi-niveaux de la modularité.

Thomas Aynaud, Vincent Blondel, Jean-Loup Guillaume, Renaud Lambiotte.

In « Partitionnement de graphe », Hermès-Lavoisier, Traité IC2.

[22] Evolving networks.

Jean-Loup Guillaume, Pierre Borgnat, Eric Fleury, Clémence Magnien, Céline Robardet, Antoine Scherrer.

In « Mining Massive Data Sets for Security », NATO Advanced Study Institute, IOS Press, 2008.

[23] Topologie d'Internet et du Web : mesure et modélisation.

Jean-Loup Guillaume, Matthieu Latapy.

In « Mesures de l'Internet », sous la direction d'Éric Guichard, Volume 6, Pages 213-226.

International conferences with referring process (19)

[24] A graph-based approach for functional urban areas delineation.

Noudéhouéno Houssou, Jean-Loup Guillaume, Armelle Prigent.

The 34th ACM Symposium On Applied Computing (SAC 2019).

[25] An Efficient Agglomerative Algorithm Cooperating with Louvain Method for Implementing Image Segmentation.

Thanh-Khoa Nguyen, Mickaël Coustaty, Jean-Loup Guillaume.

Advanced Concepts for Intelligent Vision Systems (Acivs 2018).

[26] A New Image Segmentation Approach Based on the Louvain Algorithm.

Thanh-Khoa Nguyen, Mickaël Coustaty, Jean-Loup Guillaume.

16th International Conference on Content-Based Multimedia Indexing (CBMI 2018).

[27] Unsupervised Crisis Information Extraction from Twitter Data.

Roberto Interdonato, Antoine Doucet, Jean-Loup Guillaume.

Short paper in 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2018).

[28] Discovering Community Structure in Multilayer Networks.

Soumajit Pramanik, Raphael Tackx, Anchit Navelkar, Jean-Loup Guillaume, Bivas Mitra.

ACM/IEEE International Conference on Data Science and Advanced Analytics (DSAA 2017).

[29] [2017] ComSim: A bipartite community detection algorithm using cycle and node's similarity.

Raphael Tackx, Fabien Tarissan, and Jean-Loup Guillaume.

The 6th International Conference on Complex Networks and Their Applications (Complex Networks 2017).

[30] On the Role of Mentions on Tweet Virality.

Soumajit Pramanik, Qinna Wang, Maximilien Danisch, Sumanth Bandi, Anand Kumar, Jean-Loup Guillaume and Bivas Mitra .

ACM/IEEE International Conference on Data Science and Advanced Analytics (DSAA 2016).

[31] Revealing intricate properties of communities in the bipartite structure of online social networks.

Raphaël Tackx, Jean-Loup guillaume, Fabien Tarissan.

IEEE Ninth International Conference on Research Challenges in Information Science (RCIS 2015).

[32] Learning a Proximity Measure to Complete a Community.

Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.

ACM/IEEE International Conference on Data Science and Advanced Analytics (DSAA 2014), 90-96.

[33] On the use of intrinsic time scale for dynamic community detection and visualization in social networks.

Alice Albano, Jean-Loup Guillaume, Bénédicte Le Grand.

IEEE Eighth International Conference on Research Challenges in Information Science (RCIS 2014).

[34] The Power of Consensus: Random Graphs Have No Communities.

Romain Campigotto, Jean-Loup Guillaume, Massoud Seifi.

2013 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining", ASONAM 2013.

[35] A Matter of Time - Intrinsic or Extrinsic - for Diffusion in Evolving Complex Networks.

Alice Albano, Jean-Loup Guillaume, Sébastien Heymann, Bénédicte Le Grand.

2013 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining", ASONAM 2013.

[36] Temporal Reachability Graphs.

John Whitbeck, Marcelo Amorim, Vania Conan, Jean-Loup Guillaume.

Mobicom 2012, 377-388.

[37] Analysis of Dynamic sensor networks: Power Law Then What?

Eric Fleury, Jean-Loup Guillaume, Céline Robardet, Antoine Scherrer.

IEEE Conference on Communication System Software and Middleware (COMSWARE 2007).

[38] Relevance of Massively Distributed Explorations of the Internet Topology: Simulation Results.

Jean-Loup Guillaume, Matthieu Latapy.

IEEE Joint Conference on Computer Communications and Networking (INFOCOM 2005), pages 1084-1094.

[39] Comparison of Failures and Attacks on Random and Scale-Free Networks.

Jean-Loup Guillaume, Matthieu Latapy, Clémence Magnien.

8th Int. Conference on Principles of Distributed Systems (OPODIS 04). LNCS 3544/2005, pages 186-196.

[40] Statistical Properties of Exchanges in P2P systems.

Jean-Loup Guillaume, Stevens Le-Blond.

International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'04).

[41] Efficient and Simple Encodings for the Web Graph.

Jean-Loup Guillaume, Matthieu Latapy, Laurent Viennot.

LNCS 2419/2002 pp 328; Proceedings of the 3-rd international conference on Web-Age Information Management WAIM'02, 2002.

[42] Efficient and Simple Encodings for the Web Graph.

Jean-Loup Guillaume, Matthieu Latapy, Laurent Viennot.

Short paper in proceedings of the 11-th international conference World Wide Web 2002, WWW2002.

International workshops with referring process (12)

[43] A Modular Overlapping Community Detection Algorithm: Investigating the "From Local to Global" Approach

Maximilien Danisch, Noé Gaumont, Jean-Loup Guillaume.

Cologne-Twente Workshop on Graphs and Combinatorial Optimization 2018, Paris, France.

[44] Unfolding ego-centered community structures with a similarity approach.

Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.

Proceedings of the 4th Workshop on Complex Networks (CompleNet 2013), Berlin, Germany.

[45] File Diffusion in a Dynamic Peer-to-peer Network.

Alice Albano, Jean-Loup Guillaume, Bénédicte Le Grand.

Mining Social Network Dynamic 2012, satellite workshop of WWW 2012, pages 1169-1172.

[46] Community Cores in Evolving Networks.

Massoud Seifi, Jean-Loup Guillaume.

Mining Social Network Dynamic 2012, satellite workshop of WWW 2012, pages 1173-1180.

[47] Stable community cores in complex networks.

Massoud Seifi, Jean-Loup Guillaume, Ivan Junier, Jean-Baptiste Rouquier, Svilen Iskrov.

3rd Workshop on Complex Networks (CompleNet 2012), Floride.

[48] Multi-Step Community Detection and Hierarchical Time Segmentation in Evolving Networks.

Thomas Aynaoud, Jean-Loup Guillaume.

Fifth SNA-KDD Workshop Social Network Mining and Analysis, satellite workshop of SIGKDD 2011.

[49] Long range community detection.

Thomas Aynaoud, Jean-Loup Guillaume.

Latin-American Workshop on Dynamic Networks (LAWDN) », Buenos Aires, 2010.

[50] Age, Gender and Communication Networks.

Alina Stoica, Zbigniew Smoreda, Christophe Prieur, Jean-Loup Guillaume.

Workshop on the Analysis of Mobile Phone Networks, satellite workshop of NetSci 2010.

[51] Static community detection algorithms for evolving networks.

Thomas Aynaoud, Jean-Loup Guillaume.

International Workshop on Dynamic Networks (WDN), satellite workshop of WiOpt 2010, pages 513-519.

[52] Clustering in P2P exchanges and consequences on performances.

Stevens Le-Blond, Jean-Loup Guillaume, Matthieu Latapy.

4th International Workshop on Peer-To-Peer Systems (IPTPS'05). LNCS 3640/2005, pages 193-204.

[53] Statistical analysis of a P2P query graph based on degrees and their time-evolution.

Jean-Loup Guillaume, Matthieu Latapy, Stevens Le-Blond.

6th International Workshop on Distributed Computing (IWDC 2004). LNCS 3326/2004, pages 126-137.

[54] Bipartite Graphs as Models of Complex Networks.

Jean-Loup Guillaume, Matthieu Latapy.

Workshop on Combinatorial and Algorithmic Aspects of Networking (CAAN 2004). LNCS 3405/2005 pp 127-139.

Invited papers in international conferences (2)

[55] Characteristics of the Dynamic of Mobile Networks.

Pierre Borgnat, Eric Fleury, Jean-Loup Guillaume, Céline Robardet.

BIONETICS 2009, pages 130-139.

[56] A Methodology to Identify Characteristics of the Dynamic of Mobile Networks.

Antoine Scherrer, Pierre Borgnat, Eric Fleury, Jean-Loup Guillaume, Céline Robardet.

Asian Internet Engineering Conference (AINTEC) 2008, pages 59-62.

National journal with referring process (1)

[57] Structure multi-échelle de grands graphes de terrain.

Thomas Aynaud, Jean-Loup Guillaume.

Technique et Science Informatiques 30(2), 137-154, numéro spécial « Graphes de terrain ».

National conferences and workshops with referring process (17)

[58] Une approche basée graphe pour la détection de zones fonctionnelles urbaines.

Noudéhouéno Lionel Jaderne Houssou, Jean-Loup Guillaume, Armelle Prigent.

19e conférence Extraction et Gestion des Connaissances (EGC 2019).

[59] Structure communautaire des réseaux multicouches.

Soumajit Pramanik, Raphaël Tackx, Anchit Navelar, Jean-Loup Guillaume and Bivas Mitra.

Huitième conférence Modèles et Analyses Réseau : Approches Mathématiques et Informatique (MARAMI 2017).

[60] Review and comparison of similarity measures and community detection algorithm for clustering of network constrained trajectories.

Noudéhouéno Lionel Jaderne Houssou, Jean-Loup Guillaume and Armelle Prigent.

Huitième conférence Modèles et Analyses Réseau : Approches Mathématiques et Informatique (MARAMI 2017).

[61] Déplier la structure communautaire d'un réseau en mesurant la proximité aux représentants de communauté.

Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.

Sixième conférence Modèles et Analyses Réseau : Approches Mathématiques et Informatiques (MARAMI 2015).

[62] Complétion de communautés par l'apprentissage d'une mesure de proximité

Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.

16e Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (Algotel), Ile de Ré, 2014.

[63] Une approche à base de similarité pour la détection de communautés egocentrées.

Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.

15e Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (Algotel), Pornic, 2013.

[64] Déplier les structures communautaires egocentrées - une approche à base de similarité.

Maximilien Danisch, Jean-Loup Guillaume, Bénédicte Le Grand.

Atelier Fouille de Grands Graphes, EGC 2013.

[65] Graphes d'accessibilité dynamiques.

John Whitbeck, Marcelo Dias De Amorim, Vania Conan, Jean-Loup Guillaume.

14èmes Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (Algotel 2012), La Grande Motte, France, 2012.

[66] Extraction hiérarchique de fenêtres de temps basée sur la structure communautaire.

Thomas Aynaud, Jean-Loup Guillaume.

Conférence sur les Modèles et l'Analyse des Réseaux : Approches Mathématiques et Informatique (MARAMI), Grenoble, France, 2011

[67] Détection de communautés à long terme dans les graphes dynamiques.

Thomas Aynaud, Jean-Loup Guillaume.

Journée thématique Fouille de grands graphes, en conjonction avec la première conférence sur les Modèles et l'Analyse des Réseaux : Approches Mathématiques et Informatique (MARAMI), Toulouse, France, 2010.

[68] Visualisation interactive multi-échelle des grands graphes : application à un réseau de blogs.

Massoud Seifi, Jean-Loup Guillaume, Matthieu Latapy, Bénédicte Le Grand.

8e Atelier Visualisation et Extraction de Connaissances, conjoint avec EGC'2010, Tunisie, 2010.

[69] Identification multi-échelle de la structure communautaire de très grands graphes.

Vincent D. Blondel, Jean-Loup Guillaume, Renaud Lambiotte, Etienne Lefebvre.

Dixièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (Algotel 2008), Saint-Malo, France.

[70] Analyse de la dynamique de traces de réseaux de senseurs.

Eric Fleury, Jean-Loup Guillaume, Céline Robardet, Antoine Scherrer.

Neuvièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (Algotel 2007), Ile d'Oléron, France.

[71] Clustering in P2P exchanges and consequences on performances.

Jean-Loup Guillaume, Stevens Le-Blond.

Septièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (Algotel 2005), Giens, France.

[72] Relevance of Massively Distributed Explorations of the Internet Topology: Simulation Results.

Jean-Loup Guillaume, Matthieu Latapy.

Sixièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (Algotel 2004), Bats-sur-mer, France.

[73] Comparison of Failures and Attacks on Random and Scale-Free Networks.

Jean-Loup Guillaume, Matthieu Latapy, Clémence Magnien.

Sixièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (Algotel 2004), Bats-sur-mer, France.

[74] Modèles pour les topologies réalistes.

Jean-Loup Guillaume, Matthieu Latapy.

Cinquièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (Algotel 2003), Banyuls, France.

[75] The Web Graph: an Overview.

Jean-Loup Guillaume, Matthieu Latapy.

Quatrièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (Algotel 2002), Mèze, France.

Popular work (1)

[76] Le graphe du Web.

Jean-Loup Guillaume, Matthieu Latapy.

Tangente, hors série numéro 12, Pages 12-14. Juillet 2002.