Emmanuel GODARD
Aix-Marseille University, France

Date of birth:	March 14, 1973
Nationality:	French
Position:	Professeur des Universités (Full Professor)
	Aix-Marseille University, France
	LIS– CNRS (UMR 7020)

Resume

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sept. 2015 — Professor Univ. Aix-Marseille. Research at Laboratoire d'Informatique et Systèmes (LIS – UMR 7020 – Computer Science and Systems lab), Distributed Computing team.

2010/2011 — CNRS position : PIMS/*Simon Fraser University*

2nd semester 2009/2010 — Sabbatical (CRCT), visiting *University of Victoria*

2003 - 2015 — *Aix-Marseille University*
Associate Professor.

2002 - 2003 — *Aix-Marseille University*
Post-doc position (ATER).

2000 - 2002 — *Bordeaux University*
PhD "Réécritures de Graphes et Algorithmique Distribuée" (Graphs Rewritings and Distributed Algorithms) Supervisor Yves Métivier.

Feb.-Jul. 2000 — *FinGO* (mobile internet and finance start-up)
R&D Engineer (Cryptography).

Sept. 1998 -Feb. 2000 — National Service.

1994 - 1998 — *École Normale Supérieure de Cachan*,
Mathematics and Computer Science.

Research Project

Research Interests Distributed algorithms, network modelling, computability and complexity, lower bounds, topological methods for distributed systems, graphs combinatorics.

Research Responsibilities

— Referee for International Journals: Theoretical Computer Science, Discrete Applied Maths, Fundamentica Informaticae

— Referee for International Conferences: Sirocco, Opodis, Icalp, ICGT, SPAA,PODC,...

since 2019 — head of Archimedes Mathematics and Computer Science Institute, Aix-Marseille U (federation of research unit, master and PhD programs of about 750 members (390 permanent), and 800 students).

2016 — Member of Program Committee for "DISC'2016" (International Symposium on Distributed Computing)

2015 — Member of Program Committee "Opodis 2015" (19th International Conference on Principles of Distributed Systems)

2017 — Member of Program Committee "AlgoTel'17" (16th Rencontres Francophones sur les aspects Algorithmiques des Télécommunications),

2014 — Member of Program Committee "AlgoTel'14" (16th Rencontres Francophones sur les aspects Algorithmiques des Télécommunications),

2009 — Member of the Organization Committee for "AlgoTel'09" (11th Rencontres Francophones sur les aspects Algorithmiques des Télécommunications),

Dec. 2008 — Committee Member of Shelha Abbas PhD defence, Bordeaux University.

June 2008 — "Comité de Sélection" (recruitment committee) member for Université de la Méditerranée.

2008 — Program Committe member for *Workshop on Graph Computation Models 2008* (satellite workshop of International Conference on Graph Transformations ICGT'08)

2007 - 2008 — "Commission de Spécialistes (section 27)" of Université Aix-Marseille I (subsitute member)

2006 - 2008 — "Commission de Spécialistes (section 27)" of Université Bordeaux I (subsitute member)

since 2004 — Supervisor of the PhD of T. Févat "méthodes géométriques pour les systèmes distribués".

Jan-June 2004 — Co-supervisor of MSc of T. Févat "A Self-stabilizing Algorithm for the Median Problem in Partial Rectangular Grids" (with V. Chepoi and Y. Vaxès)

2004 - 2007 — Leader of the project *Algebraic Topology and Geometry Applied to Distributed Algorithmics* (ACI Jeunes Chercheuses et Chercheurs)

Research Funding

2020 - 2024 — Member of project DUCAT (Topological Methods for Distributed Computing)

2017 - 2021 — Member of project DESCARTES (Modular Abstraction for Distributed Computing)

2013 - 2017 — Member of project MACARON (Moving and Computing: Agents, Robots and Networks) – ANR JCJC

2009 - 2012 — Member and local chair of PANDA project (*Parallel and Distributed Algorithms* – ANR)

since 2008 — Member of SHAMAN project (*Self-Organizing and Healing Architectures for Malicious and Adversarial Networks* – ANR)

2005 - 2008 — Member of SOAPDC project (*Order Structures Applied to Parallel, Distributed and Concurrent systems* – ANR)).

2004 - 2007 — Principal Investigator of TAGADA project (*Algebraic Topology and Geometry Applied to Distributed Algorithmics* – ACI "Young Researchers").

2003 - 2004 — Member of Chronos project (*Distributed Secure Timestamping* – ACI "Security").

Teaching Responsibilities

2018 - — head for Reliability and Computer Security Master, awarded *SecNumEdu* by French ANSSI

2015 - 2018 — officer for Reliability and Computer Security track of Master of Computer Science

2015 - 2018 — officer for 1st year of Online Licence Informatique (Bachelor Degree in Computer Science)

2005 - 2009 — Co-officer of "Licence Informatique" (Bachelor Degree in Computer Science)

All lectures

2019 - — lecture Master 2nd year: option "Discrete Algebraic Topology" (5h/20h, 3 ECTS)

2018 - — lecture Master 2nd year: "Computer Security watch"(3 ECTS)

2013 - 2015 — short conference (3h) to Licence 1 Physique-Chimie : Computer Science History

2011 - — lecture Master Research track : option "Distributed Computing" (5h/20h, 3 ECTS)

2011 - — lecture Master Professionnal track : Internet Network Security (50% then 100%, 6 ECTS)

2011 - 2020 — lecture Master 1st year : Networks (6 then 4 ECTS)

2011 - 2013 — lecture Oline Licence 3: Operating Systems (6 ECTS)

2009 - 2010 — lecture in Online Licence 3 : Operating Systems and C Language

2007 - 2010 — lecture in "Master Professionnel": Network Security

2005 - 2009 — lecture in Licence 3 : C programming

2004 - 2009 — lecture in Master 1 : Networks

2004 - 2009 — lecture in Master 1 : Distributed and Parallel Programming

Publications

The publications can be downloaded on
http://pageperso.lis-lab.fr/emmanuel.godard/research/

International Journals :

— Emmanuel Godard, Eloi Perdereau: Back to the Coordinated Attack Problem. Math. Struct. Comput. Sci. 30(10): 1089-1113 (2020)

— Emmanuel Godard, Damien Imbs, Michel Raynal, Gadi Taubenfeld: Leader-based de-anonymization of an anonymous read/write memory. Theor. Comput. Sci. 836: 110-123 (2020)

— Emmanuel Godard. Snap-Stabilizing Tasks in Anonymous Networks. Theory Comput. Syst. 63(2): 326-343 (2019)

— Arnaud Casteigts, Paola Flocchini, Emmanuel Godard, Nicola Santoro, and Masafumi Yamashita. About the Expressivity of Time-Varying Graphs. Theor. Comput. Sci. 590: 27-37 (2015)

— Étienne Coulouma, Emmanuel Godard and Joseph Peters. A Characterization of Oblivious Message-Adversaries for which Consensus is Solvable. Theoretical Computer Science, 2015

— Jérémie Chalopin, Emmanuel Godard, and Yves Métivier. Election in partially anonymous networks with arbitrary knowledge in message passing systems. Distributed Computing, 25(4):297–311, August 2012.

— Victor Chepoi, Tristan Fevat, Emmanuel Godard, and Yann Vaxès. A self-stabilizing algorithm for the median problem in partial rectangular grids and their relatives. Algorithmica, pages 1–23, Sep 2010.

— E. Godard, Y. Métivier, et A. Muscholl. Characterization of classes of graphs recognizable by local computations. *Theory of Computing Systems* 37(2): 249-293 (2004)

— E. Godard, Y. Métivier. Deducible and Equivalent Structural Knowledges in Distributed Algorithms. *Theory of Computing Systems* 36(6): 631-654 (2003)

— G. Fertin, E. Godard, et A. Raspaud. Acyclic and k-distance Coloring of the Grid. *Information Processing Letters*, 87(1): 51-58 (2003)

— G. Fertin, E. Godard, et A. Raspaud. Minimum feedback vertex set and acyclic colouring. *Information Processing Letters*, 84 (3):131–139 (2002)

— E. Godard. A self-stabilizing enumeration algorithm. *Information Processing Letters*, 82(6):299–305 (2002)

International Conferences :

— Emmanuel Godard, Damien Imbs, Michel Raynal, Gadi Taubenfeld: From Bezout's Identity to Space-Optimal Election in Anonymous Memory Systems. PODC 2020: 41-50

— Emmanuel Godard, Damien Imbs, Michel Raynal, Gadi Taubenfeld. Mutex-Based De-anonymization of an Anonymous Read/Write Memory. NETYS 2019: 311-326

— Emmanuel Godard, Damien Imbs, Michel Raynal, Gadi Taubenfeld. Anonymous Read/Write Memory: Leader Election and De-anonymization. SIROCCO 2019: 246-261

— Emmanuel Godard and Eloi Perdereau. $k-$Set Agreement in Communication Networks with Omission Faults. OPODIS 2016.

— Emmanuel Godard. Snap-Stabilizing Tasks in Anonymous Networks. SSS 2016, LNCS p170-184

— Jérémie Chalopin, Emmanuel Godard, Antoine Naudin. Anonymous Graph Exploration with Binoculars. DISC 2015 LNCS 9363 p107-122

— Emmanuel Godard and Dorian Mazauric. Computing the dynamic diameter of non-deterministic dynamic networks is hard. In ALGOSENSORS 14, Lecture Notes in Computer Science, Wrocław, Poland, 2014.

— Jérémie Chalopin, Emmanuel Godard and Antoine Naudin. What Do We Need to Know to Elect in Networks with Unknown Participants? Sirocco'2014. July 2014.

— Étienne Coulouma and Emmanuel Godard. A characterization of dynamic networks where consensus is solvable. In Thomas Moscibroda and Adele A. Rescigno, editors, SIROCCO'13, volume 8179 of LNCS, pages 24–35. Springer International Publishing, January 2013.

— Arnaud Casteigts, Paola Flocchini, Emmanuel Godard, Nicola Santoro, and Masafumi Yamashita. Expressivity of time-varying graphs. In Leszek Gasieniec and Frank Wolter, editors, Fundamentals of Computation Theory, volume 8070 of Lecture Notes in Computer Science, pages 95–106. Springer Berlin Heidelberg, January 2013.

— Emmanuel Godard and Joseph Peters. Consensus vs broadcast in communication networks with arbitrary mobile omission faults. In Proc. of SIROCCO'11, volume 6796 of LNCS, 2011.

— Tristan Fevat and Emmanuel Godard. Minimal obstructions for the coordinated attack problem and beyond. In Proc. of IPDPS'2011, 2011.

— J. Chalopin, E. Godard, and Y. Métivier. Local terminations and distributed computability in anonymous networks. In *Proc. of DISC'08*, volume 5218 of *Lecture Notes in Computer Science*, pages 47–62. Springer-Verlag, 2008.

— V. Chepoi, T. Fevat, E. Godard, Y. Vaxès. A Self-stabilizing Algorithm for the Median Problem in Partial Rectangular Grids and Their Relatives. *SIROCCO 07 - 14th International Colloquium on Structural Information & Communication Complexity*, LNCS. pp 81-95 (2007)

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— J. Chalopin, E. Godard, Y. Métivier, G. Tel. About the Termination Detection in the Asynchronous Message Passing Model. *SOFSEM 2007: 33rd Conference on Current Trends in Theory and Practice of Computer Science*. LNCS. pp 200-211 (2007)

— J. Chalopin, E. Godard, Y. Métivier, R. Ossamy. Mobile Agent Algorithms Versus Message Passing Algorithms. *Principles of Distributed Systems, 10th International Conference, OPODIS 2006*. LNCS. pp 187-201 (2006)

— E. Godard et Y. Métivier. A characterization of families of graphs in which election is possible (*ext. abstract*). In M. Nielsen and U. Engberg, editors, *Proc. of Foundations of Software Science and Computation Structures, FOS-SACS'02*, number 2303 in LNCS, pages 159–171. Springer-Verlag, (2002) **EATCS best theoretical paper for ETAPS'02**

— E. Godard et Y. Métivier. Equivalence of structural knowledges in distributed algorithms. In *SIROCCO 02 - 9th International Colloquium on Structural Information & Communication Complexity*, number 13 in *Proceedings in Informatics*, pages 149-164. 2002. Carleton Scientific.

— E. Godard, Y. Métivier, M. Mosbah and A. Sellami. Termination Detection of Distributed Algorithms by Graph Relabelling Systems. *Proc. of 1st International Conference on Graph Transformations*, LNCS. October 7-12 2002.

— E. Godard et Y. Métivier. Characterization of classes of graphs recognizable by local computations with initial knowledge (*extended abstract*). In *SIROCCO 01 - 8th International Colloquium on Structural Information & Communication Complexity*, number 11 in Proceedings in Informatics, pages 179–194. Carleton Scientific, 2001.

— E. Godard, Y. Métivier, et A. Muscholl. The power of local computations in graphs with initial knowledge. In *Proc. of Th. and App. of Graph Transformations'98*, number 1764 in LNCS, pages 71–84. Springer, 2000.

Short Communication in International Conferences or Posters :

— Arnaud Casteigts, Paola Flocchini, Emmanuel Godard, Nicola Santoro, and Masafumi Yamashita. Brief announcement: Waiting in dynamic networks. In Proceedings of the 2012 ACM Symposium on Principles of Distributed Computing, PODC '12, page 99–100, New York, NY, USA, 2012. ACM. See http://arxiv.org/abs/1205.1975.

French Conferences :

— Jérémie Chalopin, Emmanuel Godard et Antoine Naudin. Utiliser des jumelles pour explorer rapidement les graphes triangulés. *AlgoTel 2016, Dix-huitièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications*, 2016. **Best Paper**

— Emmanuel Godard and Joseph Peters. Equivalence du Consensus et de la Diffusion dans les Réseaux à Défaillances Bornées In *AlgoTel 2012, Qua-*

torzièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications, 2012.

— G. Fertin, E. Godard, and A. Raspaud. Conversion de longueur d'onde dans les réseaux optiques (facteur d'optimalité 5/3). In *AlgoTel 2002, Quatrièmes Rencontres Francophones sur les aspects Algorithmiques des Télécommunications*, 2002.

Reports :

— E. Godard, Y. Métivier, G. Tel. Termination Detection of Local Computations. Number arXiv:1001.2785v2. Jan 2010. 68 pages.