Fabrice Theoleyre

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Né le 21 mai 1980
Nationalité française

Expérience

2022 – actuel	**Directeur de recherche CNRS** Université de Strasbourg ICube, Équipe Réseaux
2021 – actuel	**Responsable de l'équipe Réseaux** Université de Strasbourg
2011 – actuel	**Chargé de recherche CNRS 1^{iere} classe**
2010 – 2011	**Chargé de recherche CNRS 2° classe** Université de Strasbourg ICube, Équipe Réseaux
2007 – 2009	**Chargé de recherche CNRS 2° classe** Université de Grenoble LIG, Équipe Drakkar
2006 – 2007	**Chercheur en post-doctorat** Université de Grenoble LIG, Équipe Drakkar
jan – avril 2006	**Chercheur invité** University of Waterloo, Canada Collaboration avec Pr. Catherine Rosenberg Thématique : conception d'une couche MAC pour réseaux de capteurs optimisée pour la capacité d'un trafic de type convergecast
2003 – 2006	**Allocataire de recherche** Laboratoire CITI, INRIA Rhône-Alpes (ARES), INSA de Lyon Directeurs de thèse : Éric Fleury et Fabrice Valois Sujet : Une auto-organisation et ses applications dans les réseaux ad hoc et hybrides
dec 2005	**Chercheur invité** INRIA Sophia-Antipolis, équipe MASCOTTE Collaboration avec Hervé Rivano Thématique : étude de la capacité dans les réseaux ad-hoc

Diplômes

Juin 2014 **Habilitation à diriger des recherches, Université de Strasbourg**
Laboratoire : CITI, INRIA Rhône-Alpes
Garant : Thomas Noël
Rapporteurs : Marcelo Dias de Amorim (UPMC, France), Mischa Dohler (King's College, London), Catherine Waterloo (University of Waterloo, Canada)
Examinateurs : Andrzej Duda (Grenoble INP), Fabrice Valois (INSA de Lyon)
Sujet : Accès au médium et exploitation efficace des réseaux radio multisaut

2003 – 2006 **Doctorat en Informatique, École doctorale EDIIS, INSA Lyon**
Laboratoire : CITI, INRIA Rhône-Alpes
Directeurs de thèse : Fabrice Valois et Éric Fleury
Rapporteurs : Andrzej Duda (Grenoble INP), Thomas Noel (Univ. Strasbourg), Ivan Stojmenovic (Univ. Ottawa, Canada)
Examinateurs : Serge Fdida (UPMC), David Simplot-Ryl (INRIA Lille)
Sujet : Une auto-organisation et ses applications dans les réseaux ad hoc et hybrides

2000 – 2003 **Ingénieur INSA Lyon en Télécommunications**
major de promotion, avec les félicitations du jury

2002 - 2003 **Master recherche (DEA)**
Laboratoire CITI, INRIA Rhône-Alpes (ARES), INSA de Lyon
Sujet : Étude de construction et maintenance de structures virtuelles dans les réseaux sans fil multisauts

Publications [1]

Books

[L.1] Fabrice Theoleyre and Ai-Chun Pang, **Internet of Things and M2M Communications**, in *Rivers Publisher, Series in Information Science and Technology*, ISBN : 9788792982483, May 2013.

Chapitres de livres

[CL.1] Nazim Abdedaim, Benoit Darties, Fabrice Theoleyre, **Bandwidth and Energy Consumption Tradeoff for IEEE 802.15.4 Multihop Topologies**, in *Wireless Sensor Networks : Technology & Applications*, IntechOpen, 2012, doi://10.5772/1100.

[CL.2] Bogdan Pavkovic and Fabrice Theoleyre, **MAC and Routing Integration in Wireless Sensor Networks**, in *Using Cross-Layer Techniques for Communication Systems*, editor Habib Rashvand and Yousef Seifi Kavian, IGI Global, 2012, doi://10.4018/978-1-4666-0960-0.

[CL.3] Fabrice Theoleyre and Fabrice Valois, **Self-Organization of Ad Hoc Networks : Concepts and Impacts**, in *Wireless Ad Hoc and Sensor Networks*, Wiley, Juin 2007, doi://10.1002/9780470610893.ch5.

[CL.4] Fabrice Theoleyre and Fabrice Valois, **Auto-organisation de réseaux ad hoc : concepts et impacts**, in *Réseaux mobiles ad hoc et réseaux de capteurs (Traité IC2, série Réseaux et Télécommunications)*, p 101-128, Hermes, février 2006, ISBN : 2746212927.

Editoriaux

2020

1. I mention the conference rankings according to the CORE classification http://portal.core.edu.au/conf-ranks/.

[E.1] G. Papadopoulos, F. Theoleyre, X. Vilajosana, **Editorial : Industrial Internet of Things : Specifities and Challenges**, Internet Technology Letters, Wiley, pages 1-5, Volume 3, n° 4, juillet 2020, doi://10.1002/ITL2.172

2015

[E.2] F. Theoleyre, T. Watteyne , G. Bianchi , G. Tuna , V. Gungor , A-C. Pang, **Networking and Communications for Smart Cities Editorial**, Computer Communications , Elsevier, pp1-3, 58(1), mars 2015, doi://10.1016/j.comcom.2015.02.001, Impact Factor: 3.16.

Journaux

2023

[J.1] R. Caminha, P. Merindol F. Theoleyre, **Enabling Privacy by Anonymization in the Collection of Similar Data in Multi-Domain IoT**, Computer Communications, Feb. 2023 doi://10.1016/j.comcom.2023.02.022 Impact Factor: 3.16

2022

[J.2] M. Falek, C. Pelsser, S. Julien , F. Theoleyre, **MUSE : Multimodal Separators for Efficient Route Planning in Transportation Networks** , Transportation Science, INFORMS, Volume 56, n° 2, 2022 doi://10.1287/trsc.2021.1104 Impact Factor: 4.11

2021

[J.3] G. Papadopoulos , A. Mavromatis , A. Gallais, F. Theoleyre, **CoopStor : A Cooperative Reliable and Efficient Data Collection Protocol in Fault and Delay Tolerant Wireless Networks**, Wireless Networks, Springer, pp 367-381, Volume 27, n° 1, 2021, doi://10.1007/s11276-020-02461-6, Impact Factor: 2.60

[J.4] M. Falek, A. Gallais, C. Pelsser, S. Julien , F. Theoleyre, **To Re-Route, or not to Re-Route : Impact of Real-Time Re-Routing in Urban Road Networks**, Journal of Intelligent Transportation Systems : Technology, Planning, and Operations, Taylor & Francis, doi://10.1080/15472450.2020.1807345, Impact Factor: 4.27

2020

[J.5] V. Kotsiou, G. Papadopoulos , P. Chatzimisios , F. Theoleyre, **LDSF : Low-latency Distributed Scheduling Function for Industrial Internet of Things**, IEEE Internet of Things Journal, Institute of Electrical and Electronics Engineers (IEEE) Volume 7, n° 9, 2020, doi://10.1109/JIOT.2020.2995499, Impact Factor: 9.51

[J.6] G. Papadopoulos, F. Theoleyre, P. Thubert, **Operations, Administration and Maintenance (OAM) features for Reliable and Available Wireless (RAW) Networks**, Internet Technology Letters, Wiley, pages 1-6, Volume 3, n° 4, juillet 2020, doi://10.1002/itl2.163

2019

[J.7] E. Mozafarri , M. Nassiri , F. Theoleyre, **Multipath aware Scheduling for High Reliability and Fault Tolerance in Low Power Industrial Networks**, Journal of Network and Computer Applications (JNCA), Elsevier doi://10.1016/j.jnca.2019.05.013, Impact Factor: 6.28

[J.8] R. Teles Hermeto, A. Gallais, F. Theoleyre, **Experimental in-depth Study of the Dynamics of an Indoor Industrial Low Power Lossy Network**, Ad Hoc Networks journal, Elsevier, Volume 93, October 2019, doi://10.1016/j.adhoc.2019.101914 Impact Factor: 4.11

[J.9] V. Kotsiou, G. Papadopoulos , P. Chatzimisios , F. Theoleyre, **Whitelisting without Collisions for Centralized Scheduling in Wireless Industrial Networks**, IEEE Internet of Things Journal, doi://10.1109/JIOT.2019.2905217, Volume 6 (3), June 2019, Impact Factor: 9.51

[J.10] V. Kotsiou, G. Papadopoulos , D. Zorbas , P. Chatzimisios , F. Theoleyre **Blacklisting-based Channel Hopping Approaches in Low-power and Lossy Networks**, IEEE Communications Magazine, pages 48-53, Volume 57 (2), February 2019, doi://10.1109/MCOM.2018.1800362, Impact Factor: 9.61

2018

[J.11] K. Kritsis , G. Papadopoulos , A. Gallais, P. Chatzimisios , F. Theoleyre, **A Tutorial on Performance Evaluation and Validation Methodology for Low-Power and Lossy Networks**, IEEE Communications Surveys and Tutorials, doi://10.1109/COMST.2018.2820810, Impact Factor: 25.24.

2017

[J.12] Rodrigo Teles Hermeto, Antoine Gallais, Fabrice Theoleyre, **Scheduling for IEEE802.15.4-TSCH and slow channel hopping MAC in low power industrial wireless networks : A survey**, Computer Communications, Elsevier, vol 114(1), pp 84-105, December 2017, doi://10.1016/j.comcom.2017.10.004, Impact Factor: 3.16.

[J.13] Sahar Ben Yaala, Fabrice Theoleyre, Ridha Bouallegue, **Cooperative resynchronization to improve the reliability of colocated IEEE802.15.4-TSCH networks in dense deployments**, Ad Hoc Networks, Elsevier, vol 64, pp 112-126, Sept. 2017, doi://10.1016/j.adhoc.2017.07.002, Impact Factor: 4.11.

[J.14] Ines Hosni, Fabrice Theoleyre, **Self-Healing Distributed Scheduling for End-to-End Delay Optimization in Multihop Wireless Networks with 6TiSCH,**, Computer Communications, Elsevier, vol 11(15), pp103-119, September 2017, doi://10.1016/j.comcom.2017.05.014, Impact Factor: 3.16.

[J.15] Thong Huynh, Fabrice Theoleyre, Won-Joo Hwang, **On the Interest of Opportunistic Anycast Scheduling for Wireless Low Power Lossy Networks**, Computer Communications, Elsevier, pp 55-65, vol 104, May 2017, doi://10.1016/j.comcom.2016.06.001, Impact Factor: 3.16

[J.16] Oana Iova, Fabrice Theoleyre, Thomas Watteyne , Thomas Noël. **The Love-Hate Relationship between IEEE802.15.4 and RPL**, IEEE Communications Magazine, pp 188-194, 55(1) January 2017, doi://10.1109/MCOM.2016.1300687RP, Impact Factor: 9.61.

2015

[J.17] Oana Iova, Fabrice Theoleyre, Thomas Noel, **Using Multiparent Routing in RPL to Increase the Stability and the Lifetime of the Network**, Ad Hoc Networks, Elsevier, pp 1-18, janvier 2015, doi://10.1016/j.adhoc.2015.01.020, Impact Factor: 4.11.

2014

[J.18] Bogdan Pavkovic, Andrzej Duda, Won-Joo Hwang and Fabrice Theoleyre. **Efficient Topology Construction for RPL over IEEE 802.15.4 in Wireless Sensor Networks**, Ad Hoc Networks, Elsevier, volume 14, pp 25-38, August 2014, doi://10.1016/j.adhoc.2013.08.009, Impact Factor: 4.11.

2011

[J.19] Fabrice Theoleyre and Benoit Darties. **Capacity and Energy-Consumption Optimization for the Cluster-Tree Topology in IEEE 802.15.4**, IEEE Communications Letters, vol 15(8), pp 816-818, August 2011, doi://10.1109/LCOMM.2011.061011.110525, Impact Factor: 3.43.

[J.20] Fabrice Theoleyre. **A Route-Aware MAC for Wireless Multihop Networks with a Convergecast Traffic Pattern**, Computer Networks, Elsevier, vol 55(3), pp 822-837, February 2011, doi://10.1016/j.comnet.2010.10.018, Impact Factor: 4.47.

2010

[J.21] Hervé Rivano, Fabrice Theoleyre et Fabrice Valois. **A Framework for the Capacity Evaluation of Multihops Wireless Networks**, Ad Hoc & Sensor Wireless Networks (AHSWN), Old City Publishing, 9(3), pp139-162. January 2010, Impact Factor: 1.01.

2008

[J.22] Fabrice Theoleyre et Fabrice Valois. **A Self-Organization Structure for Hybrid Networks**, Ad Hoc Networks, Elsevier, 6(3), pp 393-407, May 2008, 4.1110.1016/j.adhoc.2007.02.013, Impact Factor: 4.11.

2007

[J.23] Fabrice Theoleyre et Fabrice Valois. **Structure virtuelle pour une auto-organisation dans les réseaux ad hoc et hybrides**, Annals of Telecommunications, 62(1–2), pp 240–268, January 2007, https://link.springer.com/article/10.1007/BF03253258, Impact Factor: 1.44.

Conférences internationales

2022

[CI.1] F. Veysi , J. Montavont, F. Theoleyre, **SDN-TSCH : Enabling Software Defined Networking for Scheduled Wireless Networks with Traffic Isolation**, in IEEE *International Symposium on Computers and Communications (ISCC)*, Rhode Island, Greece, juin 2022, rank B.

2021

[CI.2] F. Theoleyre, **Duocast for Wireless Industrial Networks : an Experimental Study**, in ACM *International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, Alicante, Spain, Nov. 2021, doi://10.1145/3479239.3485696, rank A.

[CI.3] R. Caminha, P. Merindol F. Theoleyre, **Data Aggregation for Privacy Protection of Data Streams Between Autonomous IoT Networks**, in *IEEE Symposium on Computers and Communications (ISCC)*, Athens, Greece, Septembre 2021, doi://, rank B.

[CI.4] A. Guillot, F. Theoleyre, C. Pelsser, **Fair Delegation of Digital Services Without Third Parties**, in *IEEE Symposium on Computers and Communications (ISCC)*, Athens, Greece, Septembre 2021, doi://, rank B.

[CI.5] R. Juaçaba Neto, P. Merindol, F. Theoleyre, **Scalability of LPWAN for Smart City Applications**, in *IEEE International Wireless Communications and Mobile Computing Conference (IWCMC)*, Online, nov. 2020, doi://10.1109/IWCMC51323.2021.9498698, rank B

2020

[CI.6] R. Juaçaba Neto, P. Merindol, F. Theoleyre, **Transformation Based Routing Overlay for Privacy and Reusability in Multi-Domain IoT**, in *IEEE International Symposium on Network Computing and Applications (NCA)*, Online, nov. 2020, rank A

[CI.7] G. Papadopoulos, F. Theoleyre, P. Thubert , N. Montavont, **IETF Reliable and Available Wireless (RAW) : Use Cases and Problem Statement**, in *International Conference on Ad-Hoc Networks and Wireless (AdHoc-Now)*, Bari, Italy, octobre 2020, rank B, **invited paper**.

2019

[CI.8] R. Teles Hermeto, Q. Bramas, A. Gallais, F. Theoleyre, **Analysis of the Network Attachment Delay of Mobile Devices in the Industrial Internet of Things**, in *International Conference on Ad Hoc Networks and Wireless (AdHoc-Now)*, Luxembourg, Luxembourg, novembre 2019, doi://10.1007/978-3-030-31831-4_7, rank B.

[CI.9] R. Teles Hermeto, A. Gallais, F. Theoleyre, **Is Link-Layer Anycast Scheduling Relevant for IEEE802.15.4-TSCH Networks ?**, in *IEEE Conference on Local Computer Networks (LCN)*, Osnabrück, Germany, octobre 2019, doi://10.1109/LCNSymposium47956.2019.9000679, rank A

2018

[CI.10] R. Teles Hermeto, A. Gallais, F. Theoleyre, **On the (over)-Reactions and the Stability of a 6TiSCH Network in an Indoor Environment**, in *ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, Montreal, Canada, Nov. 2018, doi://10.1145/3242102.3242104, rank A.

[CI.11] M. Falek , C. Pelsser , A. Gallais , S. Julien , F. Theoleyre, **Unambiguous, Real-Time and Accurate Map Matching for Multiple Sensing Sources**, in *International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob)*, Oct. 2018, doi://10.1109/WiMOB.2018.8589103, rank B.

[CI.12] I. Hosni , F. Theoleyre, **Adaptive k-cast Scheduling for high-reliability and low-latency in IEEE802.15.4-TSCH**, in *International Conference on Ad-Hoc Networks and Wireless (AdHoc-Now)*, Saint-Malo, France, pages 1-12, LNCS, Vol 11104, Sept. 2018, doi://10.1007/978-3-030-00247-3_1, rank B

[CI.13] S. Ben Yaala, F. Theoleyre, R. Bouallegue, **Performance Modeling of IEEE 802.15.4-TSCH with Shared Access and ON-OFF traffic**, in *IEEE International Wireless Communications and Mobile Computing Conference (IWCMC)*, Limassol (Cyprus), doi://10.1109/IWCMC.2018.8450358, rank B.

[CI.14] S. Ben Yaala, F. Theoleyre, R. Bouallegue **Experimental Analysis of the Efficiency of Shared Access in IEEE802.15.4-TSCH Networks with Sporadic Traffic**, in *IEEE International Conference on Advanced Information Networking and Applications (AINA)*, Krakow, Poland, May 2018, doi://10.1109/AINA.2018.00015, acceptance rate: 27%, rank B

[CI.15] R. Teles Hermeto, A. Gallais, K. Van Laerhoven, F. Theoleyre, **Passive Link Quality Estimation for Accurate and Stable Parent Selection in Dense 6TiSCH Networks**, in *European Wireless Sensor Networks (EWSN)*, Madrid (Spain), February 2018, acceptance rate: 30%, rank A.

2017

[CI.16] V. Kotsiou, G. Papadopoulos, P. Chatzimizios, F. Theoleyre, **LABeL : Link-based Adaptive BLacklisting Technique for 6TiSCH Wireless Industrial Networks**, in *ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, Miami (USA), novembre 2017, doi://10.1145/3127540.312754, acceptance rate: 27%, rank A.

[CI.17] V. Kotsiou, G. Papadopoulos, P. Chatzimizios, F. Theoleyre, **Is Local Blacklisting Relevant in Slow Channel Hopping Low-Power Wireless Networks ?**, in *IEEE International Conference on Communications (ICC)*, Paris, France, mai 2017, doi://10.1109/ICC.2017.7996980, acceptance rate: 38%, rank B.

2016

[CI.18] F. Theoleyre, G. Papadopoulos, **Experimental Validation of a Distributed Self-Configured 6TiSCH with Traffic Isolation in Low Power Lossy Networks**, in *ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, Malte, Malta, novembre 2016, doi://10.1145/2988287.2989133, acceptance rate: 27%, rank A.

[CI.19] G. Gaillard, D. Barthel , F. Theoleyre, F. Valois **Kausa : KPI-aware Scheduling Algorithm for Multi-flow in Multi-hop IoT Networks**, in *International Conference on Ad Hoc Networks and Wireless (AdHoc-Now)*, Lille, France, pages 47-61, juillet 2016, doi://10.1007/978-3-319-40509-4, acceptance rate: 37%, rank B.

[CI.20] M. Zou , J. Lu , F. Yang , M. Malaspina , F. Theoleyre, M-Y. Wu, **Distributed Scheduling of Enhanced Beacons for IEEE802.15.4-TSCH Body Area Networks**, in *International Conference on Ad Hoc Networks and Wireless (AdHoc-Now)*, Lille, France, pages 3-16, juillet 2016. **Best paper award**, doi://10.1007/978-3-319-40509-4, acceptance rate: 37%, rank B

[CI.21] S. Ben Yaala, F. Theoleyre, R. Bouallegue **Performance Study of Co-Located IEEE 802.15.4-TSCH Networks : Interference and Coexistence**, in *IEEE Symposium on Computers and Communications (ISCC)*, Messina, Italy, pages 513-518, juin 2016, doi://10.1109/ISCC.2016.7543790, acceptance rate: 39%, rank B

[CI.22] G. Gaillard, D. Barthel , F. Theoleyre, F. Valois **High-Reliability Scheduling in Deterministic Wireless Multi-hop Networks**, in *International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Valencia, Spain, juin 2016, doi://10.1109/PIMRC.2016.7794839, acceptance rate: 48%, rank B

[CI.23] I. Hosni , F. Theoleyre, N. Hamdi, **Localized Scheduling for End-to-End Delay Constrained Low Power Lossy Networks with 6TiSCH**, in *IEEE Symposium on Computers and Communications (ISCC)*, Messine, Italy, pages 507-512, juin 2016, doi://10.1109/ISCC.2016.7543789, acceptance rate: 39%, rank B

2015

[CI.24] O. Iova, F. Theoleyre, T. Noël **Exploiting Multiple Parents in RPL to Improve both the Network Lifetime and its Stability**, in *IEEE International Conference on Communications (ICC)*, London, United Kingdom, juin 2015, doi://10.1109/ICC.2015.7248389, acceptance rate: 38%, rank B

[CI.25] Fan Yang, Jialiang Lu, Fabrice Theoleyre, Wei Shu, Ming-You Wu. **Dynamic Active Area Clustering with Inertial Information for Fingerprinting based Indoor Localization Systems**, in *IFIP Networking*, Toulouse, France, May 2015. doi://10.1109/IFIPNetworking.2015.7145332, acceptance rate: 23%, rank A.

2014

[CI.26] Oana Iova, Fabrice Theoleyre and Thomas Noel, **Improving the Network Lifetime with Energy-Balancing Routing : Application to RPL**, in *IFIP/IEEE Wireless and Mobile Networking Conference (WMNC)*, Vilamoura, Algarve, Portugal, May 2014, doi://10.1109/WMNC.2014.6878864, acceptance rate: 32.9%.

[CI.27] Oana Iova, Fabrice Theoleyre, Mengchuan Zou and Jialiang Lu, **Efficient and Reliable MAC-Layer Broadcast for IEEE 802.15.4 Wireless Sensor Networks**, in *IFIP/IEEE Wireless and Mobile Networking Conference (WMNC)*, Vilamoura, Algarve, Portugal, May 2014, doi://10.1109/WMNC.2014.6878876, acceptance rate: 32.9%.

[CI.28] Guillaume Gaillard, Dominique Barthel, Fabrice Theoleyre, Fabrice Valois **Service Level Agreements for Wireless Sensor Networks : a WSN Operator's Point of View**, in *IEEE/IFIP Network Operations and Management Symposium (NOMS)*, Krakow, Poland, May 2014, doi://10.1109/NOMS.2014.6838261, acceptance rate: 29%, rank B.

2013

[CI.29] Oana Iova, Fabrice Theoleyre, Thomas Noel **Stability and Efficiency of RPL under Realistic Conditions in Wireless Sensor Networks**, in *IEEE International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC)*, London, UK, Sept. 2013, doi://10.1109/PIMRC.2013.6666490, acceptance rate: 49%, rank B.

[CI.30] Nazim Abdedaim, Fabrice Theoleyre, Martin Heusse and Andrzej Duda **Adaptive IEEE 802.15.4 MAC for Throughput and Energy Optimization**, in *IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS)*, Cambridge (MA), USA, May 2013, doi://10.1109/DCOSS.2013.44, acceptance rate: 29%, rank B.

2012

[CI.31] Carina Teixeira de Oliveira, Fabrice Theoleyre and Andrzej Duda **Channel Assignment Strategies for Optimal Network Capacity of IEEE 802.11s**, in *ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN)*, Paphos, Cyprus October 2012, doi://10.1145/2387027.2387037, acceptance rate: 17%.

[CI.32] Nazim Abdedaim, Fabrice Theoleyre, Franck Rousseau and Andrzej Duda **Multi-Channel Cluster Tree for 802.15.4 Wireless Sensor Networks**, in *IEEE International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC)*, Sydney, Australia, Sept. 2012, doi://10.1109/PIMRC.2012.6362853, acceptance rate: 44%, rank B.

[CI.33] Bogdan Pavkovic, Won-Joo Hwang and Fabrice Theoleyre. **Cluster-Directed Acyclic Graph Formation for IEEE 80215.4 in Multihop Topologies**, in *IFIP/IEEE International Conference on New Technologies, Mobility and Security (NTMS)*, Istanbul, Turkey, May 2012, doi://10.1109/NTMS.2012.6208753.

[CI.34] Huynh Thong, Ngoc-Thai Pham, Won-Joo Hwang and Fabrice Theoleyre **Stochastic Optimization for Minimum Outage in Cooperative Ad-Hoc Network**, in *IEEE International Conference on Advanced Information Networking and Applications (AINA)*, Fukuoka, Japan, March 2012, doi://10.1109/AINA.2012.72, rank B.

2011

[CI.35] Bogdan Pavkovic, Fabrice Theoleyre and Andrzej Duda. **Multipath Opportunistic RPL Routing over IEEE 802.15.4**, in *ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, Miami, USA, October 2011, doi://10.1145/2068897.2068929, acceptance rate: 24%, rank A.

[CI.36] Carina T. de Oliveira, Fabrice Theoleyre and Andrzej Duda. **Connectivity in multi- channel multi-interface wireless mesh networks**, in *International Wireless Communications and Mobile Computing Conference (IWCMC)*, Istanbul (Turkey), July 2011, doi://10.1109/IWCMC.2011.5982503, acceptance rate: 35%, rank B.

2010

[CI.37] Bogdan Pavkovic, Fabrice Theoleyre, Dominique Barthel, Andrzej Duda. **Experimental Analysis and Characterization of a Wireless Sensor Network Environment**, in *ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PEWASUN)*, Bodrum (Turkey), Oct. 2010, doi://10.1145/1868589.1868595, acceptance rate: 32%.

[CI.38] Fabrice Theoleyre, Abdelmalik Bachir, Andrzej Duda and Kin K. Leung. **Energy Efficient Network Structure for Synchronous Preamble Sampling in Wireless Sensor Networks**, in *IEEE International Conference on Communications (ICC)*, Cape Town (South Africa), June 2010, doi://10.1109/ICC.2010.5502426, acceptance rate: 39%, rank B.

[CI.39] Dorra Abdelali, Fabrice Theoleyre, Abdelmalik Bachir and Andrzej Duda. **Neighborhood Discovery and Activity Monitoring in Multichannel Mesh Networks**, in *IEEE Wireless Communications and Networking Conference (WCNC)*, Sydney (Australia), April 2010, doi://10.1109/WCNC.2010.5506146, acceptance rate: 37%, rank B.

[CI.40] Abdelmalik Bachir, Fabrice Theoleyre and Andrzej Duda. **Energy-Efficient Broadcasts in Wireless Sensor Networks with Multiple Virtual Channels**, in *IEEE Wireless Communications and Networking Conference (WCNC)*, Sydney (Australia), April 2010, doi://10.1109/WCNC.2010.5506554, acceptance rate: 37%, rank B.

2009

[CI.41] Mohammad Nassiri, Fabrice Theoleyre, Martin Heusse and Andrzej Duda. **Molecular MAC for Multichannel Wireless Mesh Networks**, in *IEEE International Conference on Mobile Adhoc and Sensor Systems (MASS)*, Macau (Macau), October 2009, doi://10.1109/MOBHOC.2009.5337028, acceptance rate: 25%, rank B.

[CI.42] Benoit Darties Fabrice Theoleyre and Andrzej Duda. **A Divide-and-Conquer Scheme for Assigning Roles in Multi-Channel Wireless Mesh Networks**, in *IEEE Conference on Local Computer Networks (LCN)*, Zurich (Switzerland), October 2009, doi://10.1109/LCN.2009.5355087, acceptance rate: 31%, rank A.

[CI.43] Benoit Darties Fabrice Theoleyre and Andrzej Duda. **A restricted-Weakly Connected Dominating Set for Role Assignment in a Multichannel MAC for Wireless Mesh Networks**, in *IEEE Conference on Wireless and Mobile Computing, Networking and Communications (WIMOB)*, Marrakech (Morocco), October 2009, doi://10.1109/WiMob.2009.37, acceptance rate: 33%, rank B.

[CI.44] Fabrice Theoleyre, Benoit Darties, Andrzej Duda. **Assignment of Roles and Channels for a Multichannel MAC in Wireless Mesh Networks**, in *IEEE International Conference on Computer Communications and Networks (IC3N)*, San Francisco (USA), August 2-6, 2009, doi://10.1109/ICCCN.2009.5235224, acceptance rate: 33%, rank A.

[CI.45] Fabrice Theoleyre, Eryk Schiller, Andrzej Duda. **Efficient Greedy Geographical Non-Planar Routing with Reactive Deflection**, in *IEEE International Conference on Communications (ICC)*, Dresden (Germany), June 14-18, 2009, doi://10.1109/ICC.2009.5198972, acceptance rate: 34%, rank B.

2007

[CI.46] Eryk Schiller, Paul Starzetz, Fabrice Theoleyre and Andrzej Duda, **Properties of Greedy Geographical Routing in Spontaneous Wireless Mesh Networks**, in *IEEE Global Communications Conference (GLOBECOM)*, Washington (USA), November 2007, doi://10.1109/GLOCOM.2007.937, acceptance rate: 39%, rank B.

[CI.47] Fabrice Theoleyre, Rabih Tout et Fabrice Valois, **New metrics to evaluate mobility models properties**, in *IEEE International Symposium on Wireless Pervasive Computing (ISWPC)*, San Juan (USA), Feb. 2007, doi://10.1109/ISWPC.2007.342624.

2006

[CI.48] Fabrice Theoleyre et Fabrice Valois, **On the Performances of the Routing Protocols in MANET : Classical versus Self-Organized Approaches**, in *IFIP Networking*, Coimbra (Portugal), May 2006, doi://10.1007/11753810_68, acceptance rate: 20%, rank A

2005

[CI.49] Fabrice Theoleyre et Fabrice Valois, **About the self-stabilization of a virtual topology for self-organization in ad hoc networks**, in *IEEE Self-Stabilization Symposium (SSS)*, Barcelona (Spain), Oct. 2005, doi://10.1007/11577327_15, rank C

[CI.50] Fabrice Theoleyre et Fabrice Valois, **Mobility management in multihops wireless access networks**, in *IFIP Personal Wireless Communications (PWC)*, Colmar (France), Aug. 2005, doi://10.1142/9781860947315_0016.

[CI.51] Fabrice Theoleyre et Fabrice Valois, **Virtual Structure Routing in Ad Hoc Networks**, in *IEEE International Conference in Communications (ICC)*, Séoul (South Korea), June 2005, doi://10.1109/ICC.2005.1494962, acceptance rate: 35%, rank B

2004

[CI.52] Fabrice Theoleyre et Fabrice Valois, **A Virtual Structure for Mobility Management in Hybrid Networks**, in *IEEE Wireless Communications and Networking Conference (WCNC)*, Atlanta (USA), March 2004, doi://10.1109/WCNC.2004.1311331, acceptance rate: 43%, rank B

Workshops internationaux ou short papers dans des Conférences internationales

2020

[W.1] R. Juaçaba Neto, P. Merindol, F. Theoleyre, **Enabling Privacy by Aggregation with Mulltidomain IoT streams**, IEEE Conference on Local Computer Networks (LCN), Sydney, Australia, nov. 2020, short paper, rank A

2018

[W.2] D. Zorbas , V. Kotsiou, F. Theoleyre, G. Papadopoulos , C. Douligeris, **LOST : Localized Blacklisting Aware Scheduling Algorithm for IEEE 802.15.4-TSCH Networks**, in *Wireless Days (WD)*, Dubai (United Arab Emirates), April 2018, doi://10.1109/WD.2018.8361705, acceptance rate: 38%.

2016

[W.3] G. Gaillard, D. Barthel , F. Theoleyre, F. Valois **Monitoring KPIs in Synchronized FTDMA Multi-hop Wireless Networks**, in *Wireless Days (WD)*, Toulouse, France, mars 2016, doi://10.1109/WD.2016.7461516, acceptance rate: 35%.

2011

[W.4] Carina T. de Oliveira, Fabrice Theoleyre and Andrzej Duda. **Broadcast strategies with probabilistic delivery guarantee in multi-channel multi-interface wireless mesh networks**, in *IFIP Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net)*, Favigna Island, Italy. June 2011, doi://10.1109/Med-Hoc-Net.2011.5970472.

2009

[W.5] O. Alphand, A. Duda, M. Heusse, B. Ponsard, F. Rousseau, F. Theoleyre. **Towards the Future Internet of Sensors**, in *Tyrrhenian (International Workshop on Digital Communications)*, Pula, Sardinia (Italy), September 2009, doi://10.1007/978-1-4419-1674-7_30.

2008

[W.6] Franck Rousseau, Fabrice Theoleyre, Andrzej Duda, Andrey Krendzel, Manuel Requena-Esteso and Josep Mangues-Bafalluy, **Geo-mobility and Location Service in Spontaneous Wireless Mesh Networks**, in *ICT Mobile Summit*, Stockholm (Sweden), June 2008.

[W.7] Mohammad Nassiri, Fabrice Theoleyre, Martin Heusse and Andrzej Duda , **Molecular Architecture for Spontaneous Wireless Mesh Networks**, in *IEEE ADHOC (Scandinavian Workshop on Wireless Ad-hoc & Sensor Networks)*, Stockholm (Sweden), May 2008.

2007

[W.8] Mohammad Nassiri, Fabrice Theoleyre, Martin Heusse and Andrzej Duda, **Molecular Architecture for Autonomic Wireless Mesh Networks**, in *ACM Conext*, Student workshop, New-York (USA), Dec. 2007, doi://10.1145/1364654.1364701.

[W.9] Christian Ibars, Aitor del Coso, Yan Grunenberger, Fabrice Theoleyre, Franck Rousseau, **Increasing the Throughput of Wireless Mesh Networks with Cooperative Techniques**, in *IST Mobile and Wireless Communications Summit*, Budapest (Hungary), July 2007, doi://10.1109/ISTMWC.2007.4299306.

[W.10] F. Rousseau, M. Heusse, Y. Grunenberger, V. Untz, E. Schiller, P. Starzetz, F. Theoleyre, O. Alphand, A. Duda, **An Architecture for Seamless Mobility in Spontaneous Wireless Mesh Networks**, in *ACM SIGCOMM, Workshop Mobiarch (International Workshop on Mobility in the Evolving Internet Architecture)*, Kyoto (Japan), August 2007, doi://10.1145/1366919.1366922.

[W.11] Fabrice Theoleyre et Fabrice Valois, **Indoor experiments of self-organization and localization protocols for hybrid networks**, in *IEEE Symposium on a World of Wireless, Mobile and Multimedia Networks (WOWMOM), EXPONWIRELESS Workshop*, Helsinki (Finland), June 2007, doi://10.1109/WOWMOM.2007.4351700.

2006

[W.12] Hervé Rivano, Fabrice Theoleyre et Fabrice Valois, **Capacity Evaluation Framework and Validation of Self-Organized Routing Schemes**, in *IEEE International Workshop on Wireless Ad Hoc and Sensor Networks (IWWAN)*, New-York (USA), June 2006, doi://10.1109/SAHCN.2006.288560.

2004

[W.13] Fabrice Theoleyre et Fabrice Valois, **Robustness and Reliability for Virtual Topology in Wireless Multihops Access Networks**, in *Mediterranean Ad Hoc Networks Workshop*, Bodrum (Turkey), June 2004.

Demontrations / Posters

2010

[DP.1] J. Beaudaux, A. Gallais, R. Kuntz, J. Montavont, T. Noel, D. Roth, F. Theoleyre and E. Valentin. **CASINO : Creating Alea with a Sensor-based Interactive Network — demo —**, in *ACM Conference on Embedded Networked Sensor Systems (SenSys)*, Zurich (Switzerland), Nov. 2010, doi://10.1145/1869983.1870033, rank A.

Conférences francophones

2020

[CF.1] M. Falek, C. Pelsser, S. Julien , F. Theoleyre. *MUSE : une planification d'itinéraires inspirée de Séparateurs Multimodaux,*, in *Algotel*, Ecully, France, Sept. 2020, https://hal.archives-ouvertes.fr/hal-02867959/.

2019

[CF.2] M. Falek, A. Gallais, C. Pelsser, S. Julien , F. Theoleyre. *De l'(in)inutilité du temps-réel pour le calcul d'itinéraire dans les réseaux routiers*, in *Algotel*, Saint-Laurent-de-la-Cabrerisse, France, mai 2019, https://hal.archives-ouvertes.fr/hal-02117230/.

2014

[CF.3] Oana Iova, Fabrice Theoleyre and Thomas Noel. **Exploiter plusieurs parents avec RPL pour améliorer la stabilité**, in *Rencontres Francophones sur les aspects Algorithmiques des Télécommunications (ALGOTEL)*, 2014, https://hal.archives-ouvertes.fr/hal-00985047v2

2011

[CF.4] Carina T. de Oliveira, Fabrice Theoleyre and Andrzej Duda. **Evaluation de stratégies d'assignation de canaux pour IEEE 802.11s**, in *Rencontres Francophones sur les aspects Algorithmiques des T'el'ecommunications (ALGOTEL)*, Cap Esterel, France. May 2011. https://hal.inria.fr/inria-00587547/.

2009

[CF.5] Benoit Darties, Fabrice Theoleyre et Andrzej Duda, **Algorithme distribué pour l'assignation de rôles dans Molecular MAC, une couche MAC multicanal**, in *Colloque Francophone sur l'Ingénierie des Protocoles (CFIP)*, Strasbourg (France), Octobre 2009. https://hal.inria.fr/inria-00419467.

[CF.6] Benoit Darties, Fabrice Theoleyre et Andrzej Duda , **Algorithme 2-approché pour la construction distribuée de réseaux moléculaires**, in *Poster Rencontres Francophones sur les aspects Algorithmiques des T'el'ecommunications (ALGOTEL)*, Carry le Rouet (France), Juin 2009

2005

[CF.7] Hervé Rivano, Fabrice Theoleyre et Fabrice Valois, **Influence de l'auto-organisation sur la capacité des réseaux ad hoc**, in *Rencontres Francophones sur les aspects Algorithmiques des T'el'ecommunications (ALGOTEL)*, Hyères, France, Mai 2005.

[CF.8] Fabrice Theoleyre et Fabrice Valois, **Routage Hybride sur structure virtuelle dans les réseaux mobiles ad hoc**, in *Colloque Francophone sur l'Ingéniérie des Protocoles (CFIP)*, Bordeaux, France, Mars 2005.

2004

[CF.9] Fabrice Theoleyre, Fabrice Valois, **Topologie Virtuelle pour une Organisation des Réseaux Hybrides Multi-sauts**, in *JDIR*, Lannion, France, Novembre 2004

Drafts IETF

[D.1] P. Thubert , G. Papadopoulos , F. Theoleyre, C. Bernardos RAW use cases, IETF, draft-ietf-raw-use-cases, version 0 (mars 2019), version 1 (novembre 2019), version 2 (Mars 2020), version 3 (Mars 2020), version 4 (July 2020), ietf 0 (Oct 2020), 1 (Février 2021), 0 (Juillet 2021). **Working Group Document depuis oct. 2020**.

[D.2] F. Theoleyre, G. Papadopoulos, G. Mirsky, Operations, administration and maintenance (OAM) features for PAW, IETF, draft-ietf-raw-oam-support, version 0 (July 2019), version 1 (Novembre 2019), version 2 (Avril 2020), version 3 (July 2020), version 4 (Octobre 2019), 00 (Avril 2021), 01 (Mai 2021), 02 (Juin 2021), **Working Group Document depuis avril 2021**.

[D.3] F. Theoleyre, G. Papadopoulos, G. Mirsky, C.J. Bernardos, Operations, administration and maintenance (OAM) features for PAW, IETF, draft-ietf-detnet-oam-framework, version oam-support-0 (Octobre 2020), oam-framework-00 (mars 2021), 01 (mars 2021), ietf 00 (Avril 2021), 01 (Mai 2021), 02 (Juin 2021), 03 (Juillet 2021), **Working Group Document depuis avril 2021**.

Remarque : les drafts IETF sont renumérotés en partant de 0 une fois adoptés officiellement par le working group, comme working group document.

Rapports de Recherche

2011

[RR.1] Nazim Abddedaim and Fabrice Theoleyre, **Implementation of a WSNet Module to Simulate the IEEE 802.15.4 Beacon-Enabled Mode in Multihop Topologies**, Research report HAL 00590853, May 2011. https://hal.archives-ouvertes.fr/hal-00590853

[RR.2] Carina teixeira de Oliveira, Fabrice Theoleyre and Andrzej Duda, **Broadcast Strategies with Probabilistic Delivery Guarantee in Multi-Channel Multi-Interface Wireless Mesh Networks**, LIG Research report 017 / HAL 00591986, May 2011. https://hal.archives-ouvertes.fr/hal-01473154.

2006

[RR.3] Hervé Rivano, Fabrice Theoleyre et Fabrice Valois, **About the Capacity of Flat and Self-Organized Ad Hoc and Hybrid Networks**, Rapport de recherche INRIA 5977, Septembre 2006. https://arxiv.org/abs/cs/0609086.

2005

[RR.4] Fabrice Theoleyre et Fabrice Valois, **About the self-stabilization of a virtual topology for self-organization in ad hoc networks**, Rapport de recherche INRIA 5650, Août 2005 (long version of the paper of SSS 2005). https://hal.inria.fr/inria-00406106.

[RR.5] Fabrice Theoleyre et Fabrice Valois, **Localization and Routing in Multihops Wireless Access Networks**, Rapport de recherché INRIA 5461, Janvier 2005. https://hal.inria.fr/inria-00070545.

Thèses

[T.1] Fabrice Theoleyre, **Medium Access and Efficient Use of Multihop Wireless Networks**, Habilitation à Diriger des Recherches (HDR) in Computer Science, University of Strasbourg, https://tel.archives-ouvertes.fr/tel-01057204v2, 25 June 2014
External Reviewers : Marcelo Dias de Amorim, Mischa Dohler, Catherine Rosenberg.
Members : Andrzej Duda, Fabrice Valois.
Garant : Thomas Noel.
President : Jean-Jacques Pansiot.

[T.2] Fabrice Theoleyre, **Une auto-organisation et ses applications dans les réseaux ad hoc et hybrides** , PhD in Computer Science, INSA de Lyon, https://tel.archives-ouvertes.fr/tel-00126131, 29 Sept. 2006
External Reviewers : Andrzej Duda, Thomas Noel, Ivan Stojmenovic.
Members : David Simplot-Ryl.
Supervisors : Eric Fleury, Fabrice Valois.
President : Serge Fdida.

Activités éditoriales

Responsabilités éditoriales :

jan 2018 - *	**Ad Hoc Networks**, éditeur associé, Impact Factor: 4.11
2014	**Computer Communications**, éditeur invité, numéro spécial *Communications and Networking for Smart Cities*, Impact Factor: 3.16
2014	**Eurasip Journal of Wireless Communications and Networking**, éditeur invité, numéro spécial *green wireless communications*, Impact Factor: 2.45
2009 - 2013	**IEEE Communications Letters** , éditeur associé, Impact Factor: 3.43
2013	co-éditeur avec Ai-Chun Pang (National Taiwan University) du livre **Internet of Things and M2M Communications**
2012 - *	**Journal of Networks**, éditeur associé
2012	livre **Using Cross-Layer Techniques for Communication Systems**, Advisory Editorial Board

Responsable de :

2022	**lead TPC co-chair**, IEEE Wimob (International Conference on Wireless and Mobile Computing, Networking and Communications), rank B
2020	**lead TPC co-chair**, IEEE ISCC (International Symposium on Computers and Communications), rank B
2021	**workshops & tutorial co-chair**, IEEE ISCC (International Symposium on Computers and Communications), rank B
2020	**workshops co-chair**, IEEE ISCC (International Symposium on Computers and Communications), rank B
2020	**workshops co-chair**, EWSN (International Conference on Embedded Wireless Systems and Networks), rank A
2016	**special session co-chair**, IEEE **ICT** (International Conference on Telecommunications), Industrial IoT : Constraints, Guarantees, and Resilience
2014	**co-chair**, **Algotel**
2012	**track co-chair**, **WPMC** (Wireless Personal Multimedia Communications Symposium), Internet of Things and M2M Communications track

Membre du comité de programme de :

2022	IEEE **ICC** (International Conference in Communications), SAC IoT track, rank B IEEE **ICCCN** (International Conference on Computer Communications and Networks), Cyber Physical Networks & IoT track, rank A IEEE **WCNC** (Wireless Communications and Networking Conference), rank B IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), rank B IEEE **GLOBECOM**, IoT and sensor networks track, rank B

2021
IEEE **ICC** (International Conference in Communications), SAC IoT track, rank B
IEEE **ICCCN** (International Conference on Computer Communications and Networks), Cyber Physical Networks & IoT track, rank B
IEEE **WCNC** (Wireless Communications and Networking Conference), rank B
IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), MAC and Cross-Layer Design track, rank B
IEEE **GLOBECOM**, Selected Areas in Communication track, rank B
IEEE **ISCC**, (International Symposium on Computers and Communications), rank B

2020
IEEE **ICC** (International Conference in Communications), SAC IoT track, rank B
ADHOCNOW, International Conference on Ad Hoc Networks and Wireless, rank B
Algotel, Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications

IEEE **ICCCN** (International Conference in Communications), SAC IoT track, rank B
IEEE **WCNC** (Wireless Communications and Networking Conference), rank B
IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), MAC and Cross-Layer Design track, rank B
IEEE **GLOBECOM**, Selected Areas in Communication track, rank B

2019
IEEE **ICC** (International Conference in Communications), SAC IoT track, rank B
IEEE **WCNC** (Wireless Communications and Networking Conference), rank B
IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), MAC and Cross-Layer Design track, rank B
IEEE **GLOBECOM**, Selected Areas in Communication track, rank B
IEEE **ISCC**, (International Symposium on Computers and Communications), rank B
ADHOCNOW, International Conference on Ad Hoc Networks and Wireless, rank B
IEEE WF-5G (World Forum on Internet of Things
IEEE WF-IoT (World Forum on Internet of Things)
IEEE **WWIC** (International Conference on Wired/Wireless Internet Communications)

2018
IEEE **ICC** (International Conference in Communications), Internet of Things track, rank B
IEEE **VTC-Spring** (Vehicular Technology Conference), Future Trends and Emerging Technologies track, rank B
IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), MAC and Cross-Layer Design track, rank B
IEEE **GLOBECOM**, Selected Areas in Communication track, rank B
IEEE **ISCC**, (International Symposium on Computers and Communications), rank B
ADHOCNOW, International Conference on Ad Hoc Networks and Wireless, rank B
IEEE WF-5G
IEEE **Wireless Days**
WISARN, International Workshop on Wireless Sensor, Actuator and Robot Networks, INFOCOM'18 workshop,

2017
IEEE **ICC** (International Conference in Communications), Selected Areas in Communications Symposium : Internet of Things, rank B
IEEE **VTC-Spring** (Vehicular Technology Conference), Wireless Access Technology and Heterogeneous Networks track, rank B
IEEE **VTC-Fall** (Vehicular Technology Conference), Vehicular Communications, Networks, and Telematics track, rank B
IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), MAC and Cross-Layer Design track, rank B
IEEE **ISCC**, (Symposium on Computers and Communications), rank B
IEEE **GLOBECOM**, Selected Areas in Communication track, rank B
IEEE **Wireless Days**
WISARN, International Workshop on Wireless Sensor, Actuator and Robot Networks

2016
IEEE **ICC** (International Conference in Communications), Selected Areas in Communications Symposium : Internet of Things, rank B
IEEE **VTC-Spring** (Vehicular Technology Conference), LTE/LTE-A, 5G, and Wireless Heterogeneous Networks track, rank B
IEEE **VTC-Fall** (Vehicular Technology Conference), Vehicular Communications, Networks, and Telematics track, rank B
IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), MAC and Cross-Layer Design track, rank B
IEEE **IWCMC**, (International Wireless Communications and Mobile Computing Conference), Wireless Sensor Symposium
IEEE **Wimob** (International Conference on Wireless and Mobile Computing, Networking and Communications)
IEEE **Wireless Days**, 5G track
WISARN, International Workshop on Wireless Sensor, Actuator and Robot Networks

2015
IEEE **ICC** (International Conference in Communications), Selected Areas in Communications Symposium : Internet of Things, & Communications for the Smart Grid & Mobile and Wireless Networking Symposium tracks , rank B
IEEE **PIMRC**, (International Symposium on Personal, Indoor and Mobile Radio Communications), MAC and Cross-Layer Design track, rank B
IEEE **VTC-Fall**, (Vehicular Technology Conference), Cellular Networks Track, rank B
IEEE/IFIP **NTMS**, (International Wireless Communications and Mobile Computing Conference), Mobility & Wireless Networks Track
ACM **IoT-Sys**, in conjunction with ACM MobiSys 2015
Algotel
IEEE **IWCMC**, (International Wireless Communications and Mobile Computing Conference), Wireless Sensor Symposium
Adhocnets, (International Conference on Ad Hoc Networks)

2014
IEEE **ICC** (International Conference in Communications), Selected Areas in Communications Symposium , rank B
IEEE **Globecom**, (Global Communication Conference) Selected Areas in Communications Symposium (IoT), rank B
IEEE/ACM **IWCMC** (International Wireless Communications and Mobile Computing Conference), Wireless Sensor Networks Symposium track, rank B
IEEE/IFIP **NTMS** (International Conference on New Technologies, Mobility and Security), Mobility track
IEEE **WIMOB** (International Conference on Wireless and Mobile Computing, Networking and Communications)
WPMC, International Symposium on Wireless Personal Multimedia Communication
WISARN, International Workshop on Wireless Sensor, Actuator and Robot Networks

2013
IEEE **VTC-Spring** (Vehicular Technology Conference), Ad-Hoc and Sensor Networks track, rank B
IEEE **PIMRC** (International Symposium on Personal, Indoor and Mobile Radio Communications), Cross Layer & Mobile Wireless Networks tracks , rank B
IEEE **VTC-Spring** (Vehicular Technology Conference), Ad-hoc, Mesh, Machine-to-Machine, and Sensor Networks track, rank B
IEEE **WIMOB** (International Conference on Wireless and Mobile Computing, Networking and Communications)
IEEE/ACM **IWCMC** (International Wireless Communications and Mobile Computing Conference), WSN track, rank B
Algotel
EAI **ADHOCNETS** (International Conference on Ad Hoc Networks)

2012	IEEE **PIMRC** (International Symposium on Personal, Indoor and Mobile Radio Communications), Cross Layer & Mobile Wireless Networks tracks , rank B IEEE/IFIP **NTMS** (International Conference on New Technologies, Mobility and Security), Mobility track IEEE **WIMOB** (International Conference on Wireless and Mobile Computing, Networking and Communications) EAI **ADHOCNETS** (International Conference on Ad Hoc Networks)
2011	IEEE **PIMRC** (International Symposium on Personal, Indoor and Mobile Radio Communications), Cross Layer & Mobile Wireless Networks tracks , rank B IEEE/IFIP **NTMS** (International Conference on New Technologies, Mobility and Security), Mobility track IEEE/ACM **IWCMC** (International Wireless Communications and Mobile Computing Conference), WSN track, rank B IEEE **VTC-Spring** (Vehicular Technology Conference), Ad-Hoc and Sensor Networks track, rank B IEEE **WIMOB** (International Conference on Wireless and Mobile Computing, Networking and Communications)
2010	ACM **Mobility** (Conference on Mobile Technology, Applications and Systems) IEEE/ACM **IWCMC** (International Wireless Communications and Mobile Computing Conference), WSN track, rank B IEEE **AINA** International Conference on Advanced Information Networking and Applications, rank B IEEE **WIMOB** (International Conference on Wireless and Mobile Computing, Networking and Communications), rank B **Algotel** (Aspects Algorithmiques des Télécommunications)
2009	IEEE **IWCLD** (International Workshop on Cross-layer Design) ACM **Mobility** (Conference on Mobile Technology, Applications and Systems) IEEE/ACM **IWCMC** (International Wireless Communications and Mobile Computing Conference), WSN track IEEE **WIMOB** (International Conference on Wireless and Mobile Computing, Networking and Communications), rank B
2008	IEEE **PIMRC** (International Symposium on Personal, Indoor and Mobile Radio Communications), Cross Layer & Mobile Wireless Networks tracks IEEE/ACM **IWCMC** (International Wireless Communications and Mobile Computing Conference)WSN track, rank B IEEE **WIMOB** (International Conference on Wireless and Mobile Computing, Networking and Communications)
2007	IEEE/ACM **IWCMC** (International Wireless Communications and Mobile Computing Conference)WSN track, rank B
2006	IEEE **IWWAN** (International Workshop on Wireless Ad-hoc & Sensor Networks)

Membre du comité d'organisation de :

2008	**CFIP** (Colloque Francophone sur l'Ingénierie des Protocoles) : site web, publication des actes dans HAL, recherche de parrains académiques et industriels, etc.

Relecteur pour des journaux : https ://publons.com/wos-op/researcher/2749377/fabrice-theoleyre/

Responsabilités

Responsabilités nationales :

GDR Réseaux et Systèmes Distribués - RSD (2021 - *)	Membre du comité de pilotage Co-responsable de l'axe Reproductibilité et Recherche Expérimentale

CSI INS2I CNRS (2014 - 2019)	Membre du conseil scientifique d'institut de l'INS2I du CNRS, secrétaire scientifique, membre du bureau

Responsabilités au laboratoire :

Axe IFUI (2023 - *)	coresponsable de l'axe Industrie du Future et Usine Intelligente (IFUI)
CLHSCT (2014 - *)	Membre du comité d'hygiène, de sécurité et des conditions de travail (CHSCT)
Marvelig (2007 - 2009)	Membre du comité de pilotage et Responsable de l'activité *capteurs* de la plateforme du LIG

Membre de jurys de HDR :

Thomas Watteyne (2019)	The Internet of (Important) Things Inria Paris **Examinateur**

Rapporteur pour les thèses :

Aghiles Djoudi (2023)	Toward a self reconfigurable LoRaWAN network for smart city applications Directeurs : Rami Langar, Rafik Zitouni et Nawel Zangar Université Gustave Eiffel
Farah Hoteit (2022)	Méthodologies et protocoles cross-layer dans les nanoréseaux électromagnétiques et les réseaux ad hoc sans fil ultra-denses Directeurs : Eugen Dedu & Dominique Dhoutaut Université de Franche Comté
Alexis Bitaillou (2021)	Réseaux cognitifs sans fil pour des applications industrielles 4.0 Directeurs : Benoît Parrein & Guillaume Andrieux Université de Nantes
Guillaume le Gall (2021)	Wireless Network for Reliable Electric Vehicle Battery Management Directeurs : Nicolas Montavont & Georgios Papadopoulos IMT Atlantique
Indika Dhanapala (2021)	Model-based Cognitive Communications for Low-power Wireless Networks Directeurs : Dirk Pesch and Ramona Marfievivi Munster Technological University (Ireland)
Keoma Brun-Laguna (2018)	Deterministic Networking for the Industrial IoT Directeurs : Pascale Minet & Thomas Watteyne Univ. Pierre Marie Curie
Jad Nassar (2018)	Ubiquitous Networks for Smart Grids Directeurs : Nathalie Mitton & Nicolas Gouvy Université de Lille

Président de jurys de thèse :

Aghiles Djoudi (2023)	Toward a self reconfigurable LoRaWAN network for smart city applications Directeurs : Rami Langar, Rafik Zitouni et Nawel Zangar Université Gustave Eiffel
Dorine Tabarly (2022)	Interopérabilité des technologies de communication dans les réseaux véhiculaires dans la ville intelligente Directeur : Benoit Hilt Université de Haute Alsace
Ali Medlej (2022)	Efficient algorithms for improving packet routing and congestion control in dense electromagnetic nanonetworks Directeurs : Eugen Dedu & Dominique Dhoutaut Université de Franche Comté

Membre de jurys de thèse :

Bruno Chianca Ferreira (2023)	Modélisation, simulation et émulation d'applications distribuées dans des essaims de systèmes cyber-physiques déployés dans des réseaux dynamiques Directeurs : Guthemberg Silvestre et Guillaume Dufour ENAC
Mina Rady (2021)	Agile Multi-PHY Wireless Networking Directeurs : Thomas Watteyne & Paul Muhlethaler Inria Paris / Sorbonne Université
Samuel Masseport (2021)	Consensus blockchain : incitation des utilisateurs d'un réseau à la participation et à la loyauté Directeurs : Rodolphe Giroudeau & Benoit Darties Université de Montpellier
Tran anh Quang (2017)	Algorithms and Optimization for Quality of Experience aware Routing in Wireless Networks: from Centralized to Decentralized Solutions Directeurs : Cesar Viho Université de Rennes 1
Remy Leone (2016)	Passerelle intelligente pour réseaux de capteurs sans fil contraints Directeurs : Jean Louis Rougier, Vania Conan & Jérémie Leguay Telecom ParisTech
Bilel Romdhani (2012)	Exploitation de l'hétérogénéité des réseaux de capteurs et d'actionneurs dans la conception des protocoles d'auto-organisation et de routage Directeurs : Fabrice Valois & Dominique Barthel INSA de Lyon
Jovan Radak (Dec. 2011)	Realistic wireless sensor networks protocols (examinateur) Université de Lille Directrices de thèse : Nathalie Mitton & Isabelle Simpot-Ryl **Examinateur**

Animation /évaluation de la recherche :

Evaluateur Prog. de recherche	2011, 2014, 2015-2017 2010-2012 2010	FNRS (Belgique) ANR appels INFRA, Blanc Région Bretagne
Jury de recrutement	2020 2017 2016 2014 2013 2010	MCF ENSEA MCF ENSEA MCF Rennes 1 MCF Dijon MCF INSA de Lyon MCF INSA Lyon
Semba	2008-10	co-responsable du thème *Infrastructures logicielles et communicantes pour l'embarqué* (cluster de région ISLE, laboratoires de Grenoble/Lyon/Saint-Etienne/Valence)

Implication dans des projets :

(Les projets dont je suis coordinateur local (co-PI ou PI) sont écrits en gras soulignés)

Projet	Période	Thématiques & Responsabilités
Region Grand Est **Englab**	2023-2025	Cybersecurity and AI for networking, **210k€**
PHC Iran	2020-2023	PI, **5k€** for visits in Iran
ANR JCJC Nanonet	2018-2022	Participant, responsable de WP, **195k€**
CIFRE T&S	2017-2019	Technology & Strategy – CIFRE Mobilité multimodale intelligente et responsive dans des environnements urbains complexes, **30k€(HT)**
INDUS4.0	2017	PHC Tournesol, pour des échanges avec Bruno Quoitin (Université de Mons, Belgique), **1.2k€** (FR→BE)
Indus Contract T&S	2016	Prestation pour Technology & Strategy, Planification de trajets dans les villes intelligentes, **8,5k€(HT)**
Idex **5G-M2M**	2016-2019	une bourse de thèse Idex pour la virtualisation de réseaux sans-fil hétérogènes avec les SDN pour la 5G (≈ **90k€**)
ICube **SemSeN**	2016-2017	co-PI. avec C. Zanni-Merk (ICube-SDC), Semantic Sensor Networks for Smart Factories - modélisation d'une pile de protocoles déterministes pour l'Internet des Objets Industriels, basée sur des ontologies, **10k€**
SAMPO	2015	Séjour de visites d'une semaine en Finlande pour établir de nouvelles collaborations (Nokia Research, VTT Helsinki et Oulu, Univ. Tampere, Univ. Aalto, Univ. Helsinki, Univ. Oulu, **1.5k€**
Idex **DIAG@IoT**	2015	Fouille de Données expérimentales d'un réseau de capteurs radio, **10k€**
NSFC / CNRS **DREAM**	2013	Réseaux de capteurs corporels, mobilité pour des échanges avec Jiaotong University, Jialiang Lu (Shanghai, Chine), **3.2k€**
PHC STAR **DCNSO**	2012-2013	Réseaux de capteurs radio avec contraintes en délai, mobilité pour des échanges avec Inje University, Prof. Won-Joo Hwang (Gimhae, Korea), **8k€**
ANR **IRIS**	2012-2015	coordinateur local, ANR appel INFRA sur les réseaux de capteurs tout IP (Thalès (leader), ST MicroElectronics, Sen.Se, LIG, LIP6, ICube), **150k€** pour ICube
EXPRIMA	2010	PI, Expérimentations pour Réseaux Maillés, conseil scientifique de l'université de Strasbourg, **10k€**
FUI **Senscity**	2009-2011	co-responsable scientifique avec B. Ponsard (212k€, Sensor Networks for Urban Environments), pôle de compétitivité Minalogic (Orange Labs, Coronis, HP, PME, Gscope, LIG)**212k€**
ARC **CARMA**	2007-08	responsable local, ARC sur la capacité des réseaux maillés (INRIA Nice, Lyon, Lille / LIG)
RNRT ARESA	2006-09	membre, embedded computing and sensor networks
RNRT AIRNET	2006-09	membre, mobilité et Interopérabilite dans une infrastructure sans-fil
IST WIP	2006-08	membre, an all-IP wireless mesh network
ARC IRAMUS	2004-06	membre, interface radio / couche MAC
ACI FRAGILE	2003-06	membre, sécurité
CNRS RECAP	2005-06	membre, Plate-forme de réseaux de capteurs (mise en place d'une plate-forme de réseau maillé)

Encadrement

Doctorants en cours :

F. Veisi	Software Defined Industrial Internet of Things (Oct 2020 - *) encadrement à **(60%)** avec Julien Montavont (40%)

Doctorants ayant soutenu :

R. J. Neto	Nano-Autonomous Networks for Privacy Preservation in the IoT (Mars 2019 - Juillet 2022) encadrement à **(50%)** avec Pascal Merindol (50%)
M. A. Falek	Responsive Multimodal Mobility in Smart Cities (jan 2017 - Dec 2020) encadrement à **(50%)** maintenant Ingénieur chez Criteo avec Antoine Gallais (20%) et C. Pelsser(30%)
V. Kotsiou	Deterministic Performance for Low Power Lossy Networks with 6tisch : Characterization and Prediction (mars 2016 - sept 2020) encadrement à **(50%)** maintenant Enseignement en informatique en Grèce avec Georgios Z. Papadopoulos (IMT Atlantique) (50%)
R. Teles Hermeto	Standard Improvements and Predictable Performance for Industrial Internet of Things in Indoor Deployments (oct 2016 - nov 2019) encadrement à **(70%)** maintenant Ingénieur R&D chez Altran Research avec Antoine Gallais (30%)
S. Ben Yaala	Link Layer Standards for the Internet of Things (sept 2015 - July 2018) encadrement à **(50%)** maintenant Assistant Prof (sans tenure) @ SupCom'Tunis avec Ridha Bouallegue (50%)
G. Gaillard	SLA for urban WSN (Dec. 2012 - Dec. 2016) encadrement à **(20%)** maintenant postdoc @ IRIT avec Fabrice Valois (INSA de Lyon) (40%) et Dominique Barthel (Orange Labs) (40%)
O. Iova	Routing in Low Power Lossy Networks (2011 - Dec. 2014) encadrement à **(80%)** maintenant MCF @ INSA Lyon avec Thomas Noel (20%)
N. Abdeddaim	Performance Analysis of a IEEE 802.15.4 network (209 - Oct. 2012) encadrement à **(80%)** maintenant ingénieur @ PSA (véhicule connecté) avec Andrzej Duda (20%)
C. T. de Oliveira	Wireless Mesh Networks (2009 - Oct. 2012) encadrement à **(80%)** maintenant Professor @ IFCE (Brazil) avec Andrzej Duda (20%)
B. Pavkovic	Urban Wireless Sensor Networks (2009 - Dec. 2012) encadrement à **(80%)** maintenant chercheur @ RT-RK (Serbie), Bâtiment intelligent avec Andrzej Duda (20%)

Master recherche :

K. Brun-Laguna	Equilibrage énergétéique dans un réseau 6tisch (2015), maintenant doctorant INRIA Paris
A. Mekni	Etude statistique de données expérimentales d'un réseau de capteur indoor (2015)
M. Sabzevari	Trafic Sporadique dans les réseaux RPL / IEEE 802.15.4e (2013) co-encadrement avec Mohammad Nassiri (Basu university, Iran)
F. Gargouri	Traitement de données et de requêtes dans les réseaux de capteurs radio (2009)
D. Abdelali	Allocation de canaux et mesure d'activité dans les réseaux spontanés sans-fil et maillés (2009)
R. Tout	Mobility Models Characterization for Mobile Ad Hoc Networks (2005), Docteur de l'INSA de Lyon (2010)

TER :

K. Brun-Laguna	Evaluation expérimentale des performances de IEEE 802.11s (2014)
Q. Zhang	Réseaux corporels sans-fil (BANet) en situations denses (2014)
T. Randriamifidy	Internet des Choses sur IEEE-802.15.4e-TSCH (2014)
G. Hurel	Expérimentations pour l'évaluation du protocole IEEE 802.15.4 (2012)
N. Weber	Experimental evaluation of IEEE 802.11s (2011)
Y. Zhang	Étude de la robustesse du processus d'association de IEEE 802.15.4 (2010)
Z. Yi	Étude de la robustesse du processus d'association de IEEE 802.15.4 (2010)
J. Roy	Évaluation des performances de IEEE 802.15.4 en mode beacon sur des cas pathologiques (2010)
J. Boulanger	Implémentation d'une couche MAC pour réseaux de capteurs sans-fil sur une plateforme d'expérimentations (2009)

Master professionnel (projets de fin d'étude) :

S. Abid	Déploiement d'OMF pour la plateforme Exprima (2014, 5 months)
A. Sundungi	Openwsn with WSN430 nodes (2013, 2 months)
B. Madelaine & J. Bally	Deployment of the NITOS scheduling solution for the WMN testbed (2012)
S. Harroum	Geographic routing in MANET with ns2 (2008)
B. Damoc	Ad hoc networks monitoring (2006)
X. Pavoux	Evaluation of routing protocols for MANET (2005)
L. Guedat & T. Bezancon	IPv6 deployment (2005)
M. Loscos & O. Schirman	Localization in hybrid networks (2004)
M. Petitjean & I. Fraizy	Routing in MANET (2004)

Enseignement

Responsabilités :

2012 - 2016	Responsable de l'option Réseaux & Télécoms 3A Télécom Physique Strasbourg
2012	Création de l'option Réseaux & Télécoms Création des modules, choix des intervenants (250h de formation scientifique)
2011 - 2012	Responsable de l'option Génie Logiciel Systèmes & Réseaux (GSLR) en 3A Télécom Physique Strasbourg
2011 - 2016	Membre du Conseil de Perfectionnement Membre des jurys en tant que responsable d'option Télécom Physique Strasbourg

Responsable et conception des modules :

GRAPHES	Théorie des Graphes (Télécom Physique Strasbourg)
INDUS	Réseaux industriels (Télécom Physique Strasbourg)
SECU	Sécurité réseau (Télécom Physique Strasbourg, ECAM Strasbourg)
RADIO	Architecture des réseaux radio (Télécom Physique Strasbourg)
PROG	Programmation Réseaux (Télécom Physique Strasbourg)
SYS/NET	Systèmes et Réseaux (Télécom Physique Strasbourg)
NTW	Networks (Grenoble INP)
RAS	Réseaux Autonomes sans-fil (INSA de Lyon, dpt IF)
INR	Simulations et performances (INSA de Lyon, dpt IF)
SEC	Réseaux et Sécurité (CPE Lyon)

Intervenant dans les modules :

RP	Réseaux & Protocoles (Univ Strasbourg)
NET	Réseaux (INSA-Lyon, dpt TC)
LMW	Local, metropolitan and wide area networks (INSA-Lyon, dpt TC)
INR	Simulations et performances (INSA-Lyon, dpt TC)
AGP	Algorithmie (INSA-Lyon, dpt TC)
SDE	Systèmes d'exploitation (INSA-Lyon, dpt TC)
WEB	Programmation Web (INSA-Lyon, dpt TC)
COR	Chaînes de Markov et réseaux de Pétri (INSA-Lyon, dpt TC)

Enseignements depuis 2006 :

Années	Intitulé	Nature	eq. TD	Localisation
2017-2023	**Théorie des Graphes**	CM, TD	43	INOC
2015 -2023	**Réseaux industriels**	CI	24	ISAV
2013-2023	**Initiation à la Recherche**	CM	4,5	UFR
2018-2019	**Réseaux Sans-Fil**	CM, TD	28	UFR
2012-2015	**Architecture des réseaux radio**	CM	7	RT
2012-2015	**Sécurité des Réseaux**	CM, TP	19	RT
2013-2014	**Sécurité des Réseaux**	CM, TP	19	ECAM
2012, 2015-2016	Réseaux TCP-IP	CM, TD	15	RT
2011-2015	**Programmation Réseau**	CM, TD, TP	22,5	RT
2011-2012	**Systèmes Distants**	CM, TD, TP	24	FIP
2010 -2011	Réseaux & Protocoles	TD , TP	38	UFR
2007	**Réseaux**	CM, TD, TP	40	UJF
2007	**Sécurité**	CI	14	IF
2007	**Réseaux Autonomes Sans-Fil**	CI	20	IF

en gras, cours dont j'ai été responsable

Bilan : au total, enseignant pour environ **750h eq. TD** depuis 2003.

TPS : Télécoms Physique Strasbourg (anciennement ENSPS)
INOC : Réseaux et Télécoms, à Télécom Physique Strasbourg
FIP EII : Formation d'Ingénieurs en Partenariat, Electronique et Informatique Industrielle
ECAM : ECAM Strasbourg, option Management des systèmes d'informations
UDS : Université de Strasbourg, filière Réseaux Informatiques, Systèmes Embarqués
CPE : CPE Lyon, filière Informatique, Réseaux et Communications
INSA IF : INSA de Lyon, département Informatique
INSA TC : INSA de Lyon, département Télécommunications
UJF : Université Joseph Fourrier, Master international CSCI
Les modules (ou sous-modules) dont j'ai été responsable sont représentés en gras