

# Nathalie Mitton

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## 1 Professionnal experiences

2016-... : Inria Senior Researcher (DR)  
2012-... : head of Inria research group FUN  
2006-2016: Inria Junior research (CR)

## 2 Diploma

<i>Habilitation à diriger des recherches (HDR), Internet des objets, auto-organisation et passage à l'échelle</i>	
<b>Université de Lille 1</b>	26/05/2011
<i>PhD, Auto-organisation des réseaux sans fil multi-sauts</i>	<b>INSA de Lyon</b>
<i>Engineer Diplomea, es Telecommunications</i>	<b>INSA de Lyon</b>
<i>MSC , INSA de Lyon</i>	
	2003

## 3 Summary of research activities

Internet of Things and of the physical world includes the extension of Internet to things allowing these latter to communicate and to collect information about their environment. This is in this framework that I realized my research, focusing on communications and self-organization of wireless sensor and robot networks and RFID systems. These technologies all feature constraints capacities (memory storage, computing resources, low energy autonomy, etc). Communications are mainly wireless and so subject to interference and link instability. Network nodes can move (robots) or be moved, which lead to constant topology changes.

My objective has been to propose simple, distributed, localized and efficient protocols that dynamically adapt by design to the environment specificities. The main goal is to propose efficient solutions that enable the coexistence and the cooperation between heterogeneous devices by leveraging on their differences to improve the whole performances. In a nutshell, what (piece of) data to send, to whom, how, when and why. Beyond research results, I have tried as much as possible to combine an approach both theoretical and experimental.

## 4 Prizes and awards

Personnal distinctions :

- January 2021: Nominated as "Chevalier de l'ordre du mérite", national governmental distinction for her research in digital sciences,

- N2Women : Nominated as among the 10 stars in 2020, in networking and communications from ComSoc Society
- Distinguished reviewer for IEEE Infocom 2021

Paper awards :

- Top Paper Award: “Towards a smart city based on cloud of things, a survey on the smart city vision and paradigm” [25] in ETT, 2016
- Best Paper Award: “A Thompson Sampling Approach to Channel Exploration-Exploitation Problem in Multihop Cognitive Radio Networks ” [83] in Proc. 27th annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), 2016
- TRACAVERRRE project was finalist for the **Prix de l’Innovation VINCI 2015**.
- CENTR R&D award 2013 to the ANR Wings project by the Council of European National Top Level Domain registries (CENTR) in october 2013.
- European RFID Award : for the DECARTE project by RFID European Lab of ESCP Europe in march 2012.
- TPDS August 2012 **SpotLight Paper** of the month: forr “Hypocomb: Bounded-degree . Localized Planar Graphs for Wireless AdHoc Networks Ad Hoc Networks” [31].
- Best Demo Award: “Large scale geolocalization and routing experimentation with the SensLAB testbed” in IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), 2011.
- Best Paper Award: “Adapting dynamically neighbourhood table entry lifetime in wireless sensor networks” [155] in Proc. 10th Inter. Conf. on Wireless Com. and Signal Processing, 2010.

Collective awards:

- TRACAVERRRE project was finalist for the **Prix de l’Innovation VINCI 2015**.
- CENTR R&D award 2013 to the ANR Wings project by the Council of European National Top Level Domain registries (CENTR) in october 2013
- European RFID Award : for the DECARTE project by RFID European Lab of ESCP Europe in march 2012

## 5 Research activities supervision

**PhD supervision:**

**Undergoing PhD**

- **Nina Santi** - *Adaptive and dynamic edge gateways IoT-oriented deployments (oct 2020-...)*.
- **Edward Staddon** - *Threat detection, identification and quarantine in wireless IoT based Critical Infrastructures. (oct 2019-...)*.
- **Brandon Foubert** - *Polymorphical Wireless Communication for Smart Agriculture. (sept 2018-...)*.

## PhD defended

- **Abdoul Aziz Mbacke** - *Optimized deployment and scheduling for RFID-Wireless sensor networks networks in a Smart City* . (nov 2015- Oct 2018).
- **Jad Nassar** - *Ubiquitous network for Smart Grid*. (nov 2015- Oct 2018). Supervision at 50% with Nicolas Gouvy, HEI.
- **Viktor Toldov** - *Interference and energy consumption in wireless networks*. (oct. 2013-Jan 2017). Co-supervision with Laurent Clavier, Telecom Lille 1.
- **Riccardo Petrolo** - *Towards a uniformization of Internet of Things in Smart Cities*. (sept. 2013-oct. 2016).
- **Mouna Rekik** - *Optimization of Smart Grids with sensor networks*. (april 2013-july 2016). Co-supervision with Zied Chtourou, Académie militaire de Sfax, Tunisia.
- **Natale Guzzo** - *Design and Implementation of a communication stack for wireless sensor network based container monitoring*. (nov. 2012-dec 2015). PhD funded by the TRAXENS company.
- **Roudy Dagher** - *Geolocalisation with wireless sensor networks*.(oct. 2012-oct 2015).
- **Tony Ducrocq** - *Toward a mixe architecture RFID and sensor networks..* (nov 2010-nov 2013).
- **Nicolas Gouvy** - *Geographic routing in robot and sensor networks*. (oct 2010-sept 2013).
- **Jovan Radak** - *Experimenting wireless sensor networks*. (janv. 2010- dec. 2011).
- **Loc Schmidt** - *Distributed filtering and collect in RFID middlewares*. (janv. 2008- dec. 2010).

## 6 Collectives responsibilities

- Participation to Inria collective tasks (only ongoing tasks):-
  - Member of scientific board of Inria Lille center du bureau (BSP)
  - Elected member of Evaluation committee of Inria since 2015
  - Inria representative and CA board member of the ContactLess technology centrer (CITC-EuraRFID).
- Expertise activities:
  - Thesis and HDR committees :
    - \* Reviewer the following HdR defense committees : 2021: Françoise Sailhan, 2020: Patrick Sondi (UCLO), 2019: Thomas Watteyne (Universit Paris Sorbonne)
    - \* Reviewer for the following PhD defense committees : 2 in 2021 (C. Berenger, Aix-Marseille, R. Grunblatt, Lyon), 6 in 2020 (T. Lagos, Rennes, J. Garcia, Toulouse, V. Kotosious Strasbourg, G. Bou Tayed, UBFC, D. Komguyen, Insa Lyon), 6 in 2019 (G. Bu, Paris, F.J. Fabra Collado, Valencia Spain, M. Harmassi, La Rochelle, L. Besson, Rennes, P. Pittolo, Strasbourg, M. Naas, UBO), 5 in 2018 (S. Le Roux, Afrique du Sud, W. Badreddine, Paris, Y. Zguira, INSA Lyon, D. Shehadeh, IMT Rennes, H. Tall Clermont-Ferrand), 8 in 2017 (JG Kriek Toulouse, L. Reynaud, Lyon, R. Ben Messadou, La Rochelle; F. Ait Aoudia, Rennes 1, A. Sfar, UTC, D. Shehadeh, Rennes, C. Gonzales, Reims, P.O. Kamgueu, Nancy), 2 in 2016 (R. Leone Thales, Q. Bramas UPMC), 2 in 2015 (B. Billet, UPMC/Inria, M. Zancanao UPMC/LiP6, M. Vucinic Grenoble), 7 in 2014 (A. Sinha Université de Rennes, R. Kheddami, ESISAR, Valence, de Y. Benchaïb, Institut Telecom, Paris, D. He, Universidad de Madrid, Spain, G. Z. Gurkas Aydin, Institut Telecom, Paris, A. Reggani, UPMC/LIP6) and 4 older.
    - \* Members of 21 PhD and 4 HDR committees (other than reviewer role) between 2008 and 2021.

- Project evaluation
  - \* Member of the committee evaluation for French GDR best PhD award
  - \* Evaluator for projects for French ANR, FWO-Research project, Amstic-Sud, South Africa National Research Fondation, Polish National Science Centre, Heinz Maier-Leibnitz-Prize 2020 (and much other before)
  - \* Member of the Advisory board of the H2020 SMARTLAGOON project and of the H2020 NGI pointer project.
  - \* Ambassador for the H2020 PLATOON project.
- Project evaluation
  - \* Member of several Maitre de Conference committees (5R in 2021, 16 between 2016 and 2020) and Full Professor position committees (2 in 2021, 8 between 2016 and 2020) ,
  - \* Member of several research positions committees (1 CR and 1 DR in 2020, 11 committees between 2016 and 2020 )
- Revues :
  - \* Guest Editor of two Special Issues in MDPI Sensors ”QoS in wireless sensor networks” in 2020 and ”Multi sensor fusion for indoor localization” in 2021
  - \* Lead editor for Wireless Communications and Mobile Computing
  - \* Member of the editorial boards of Future Internet Section Internet of Things (since 2018), Journal of Interconnection Networks (JOIN) since 2021, **AdHocNetworks** (since 2012), IET Wireless Sensor Systems (WSS) (since 2013), **ComCom** (since 2014), Wireless Communications and Mobile Computing (WCMC) (since 2016) and Wiley Transactions Emerging Telecommunications Technologies (ETT) (since 2016).
  - \* Reviewer for several revues such as **IEEE/ACM Transactions on Networking**, **Wireless Communications and Mobile Computing**, IEEE Transactions on Industrial Informatics, IEEE Wireless Communications Magazine, IEEE Transaction on Parallel Distributed System
- Conferences :
  - \* (co-)General chair of SSC 2017 and 2016, **InterIoT 2015 et 2016**, AdhocNow 2016, Adhocnets 2014 and 2015.
  - \* (co-)program chair of Pe-Wasun 2017, WSCP 2017, VTC 2017, UIC 2017 and 2016, SWC 2017, VTC-Spring 2016, ICNC 2016, CSE 2016, AdHocNow 2016, SSC 2016, Cloudification of IoT 2015, IoT-IP 2016, 2015, 2014 and 2013, IndiaCom 2015, **WiMoB 2013**, **IThings 2012**, Wisarn-Fall 2011.
  - \* Co-track chair of IEEE ICCCN 2021
  - \* Poster co-chair **Infocom** 2019, **Mobihoc 2011**.
  - \* Competition chair EWSN 2020
  - \* Keynote chair MDM 2020
  - \* Demo chair **MobiCom 2015**.
  - \* co-tutorial and workshop chair of ISCC 2021
  - \* TPC member for several conferences like : AlgoSensors 2021, **Infocom** 2021 & 2020, **PerCom** 2020 & 2019, **DCOSS** 2020 & 2019, **WiMob** since 2017, **WCNC** since 2018 **CCNC** 2017, **NOMS 2016**, **ICC** since 2015, **MDM 2014 and 2013**, SwanSity 2014, SeCAN 2014, WPMC 2014. **ADHOCNOW** since 2015, EUPSN 2013, CoMNET-IOT 2012, IST-AWSN 2012, CMC 2012 and 2011, WiSARN 2011 and 2010, SENSORCOM 2011, **SSS 2011**
  - \* Conference organization AdHocNow 2016, Algotel 2010 (co-organized with Tahiry Razafindralambo), JDIR 2008 and ICTF 2008 et 2009.
- Schools : co-program chair of the following summer schools Rescom 2021 and 2015 and EPRA 2012.

## 7 Management

### 7.1 Research group management

- Head of the Inria FUN team since January 2012 (15 persons).

### 7.2 On-going Research Projects

**H2020 CyberSANE (2019-2022).** WP Leader - CyberSANE aims to enhance the security and resilience of Critical Information Infrastructures (CIIs) by providing a dynamic collaborative, warning and response system.

**CHIST-ERA DRUID-NET (2020-2023).** WP Leader - DRUID-NET aims to design and develop a new generation of workload estimators, performance models that efficiently capture the time-varying nature of IoT-based applications, dynamic networks, and edge computing infrastructure.

**FIT - EquipEX (2011-2020).** FIT deploys a large scale wireless sensor and robot network testbed. I am responsible for the set up and bounded development of the Lille platform. See <http://iot-lab.info/> for more information.

**AgriNET (2017-2023).** *Project leader* - Joint collaboration with Stellenbosch University. This projects aims to deploy wireless sensor networks for the monitoring of vineyard and potatoes crops.

## 8 Teaching

For the sake of clarity, I only mention here teaching activities active between 2012 and now.

- **Years 2011-2016** : Course in RFID Systems in Master at Telecom Sud Paris.
- **Years 2015-2016** : Cours on Contactless Technologies sur les technologies sans contact for bachelors in Université de Valenciennes.
- **Years 2012-2014**: Course in Autonomous networks in Master Université de Lille 1
- **Years 2010-2018** : Course in RFID Systems in Master (remote)
- **Years 2012-2021**: Course in Wireless Networks for Master at Telecom Lille 1
- **Years 2012-2021**: Course in Wireless Networks for Master at Université de Lille 1
- **Year 2017-2021**: Course in Internet of Things for Master at Central Lille
- **MOOC** : Co-chairing of the realization of a MOOC on Smart Cities (3 sessions in French, 2 in English, now open in self-paced mode.)
- **MOOC** : Participation to a MOOC "Internet of Things with Microcontrollers: a hands-on course" (more than 6300 registrations for the first session)

## 9 Diffusion of scientific information

Popularization article in revues :

- Techniques de l'ingénieur 2019: "Le routage dans les réseaux de capteurs sans fil", Ref: S7510,
- Interstices 2011 : " La RFID c'est dangereux ?" ([http://interstices.info/jcms/i\\_60963/la-rfid-cest-dangereux](http://interstices.info/jcms/i_60963/la-rfid-cest-dangereux)), Ref:60963,
- Comptes rendus - Physique de l'Académie des sciences "From the Internet of things to the Internet of physical world" 2011, 12, pp. 669-674.

Invited speaker in Popularization conferences :

- Invited speaker at Workshop Digital Agriculture in Africa , in Montpellier, in April 2018
- Invited speaker at CORES conference in Roscoff, France, in May 2018
- Invited speaker at WFCS conference in Imperia, Italy, in June 2018
- Invited speaker at Nantes University, France, in October 2018
- Invited speaker CNRS Josy Days in Paris in October 2016
- Invited speaker at Smyle Workshop at EPFL in Neuchatel, Switzerland, in September 2016
- Invited speaker at 10th European eAccessibility Forum "e-Accessibility in a Connected World in Paris, May 2016
- Invited speaker at "IoT day Paris Descartes" on March 2016
- Invited speakers at JEAI days in Lille on February 2016
- Invited speaker SiDO EDF-Institut Telecom days "IoT and Smart Cities", December 2014, Paris,
- Invited speaker at CAFFEET "IoT and Smart Factories", november 2014, San Francisco,
- Invited speaker at Rencontres Inria Industries "Les nouveaux défis des réseaux sans fil ubiquitaires", november 2014, Rocquencourt,
- Invited speaker at ProjectCity conference on Smart Cities, october 2014, Lille,
- Invited speaker at Intelligent Transportation System "IoT and SmartCars", september 2014, Lille
- Invited speaker at "La RFID à l'épreuve de l'innovation responsable" conference, march 2014, Paris, "RFID et Environnement",
- Invited speaker at Nord IT days, 30 may 2013, Lille, "La RFID et l'Internet des Objets",
- Invited speaker at "9ème workshop Innovations Numériques pour la Ville Durable, 17 avril 2013, Paris, "De la RFID passive à la RFID active : applications aux villes du futur",
- Invited speaker "Ville numérique", mairie de Villeneuve d'Ascq, November 2011, "Les réseaux de capteurs",
- Invited speaker at Rencontres Inria Industries Services mobiles in Sophia Antipolis, January 2011 "RFID et Réseaux de capteurs".

Invited Speaker in specialized conferences :

- Invited speaker at IEEE International Workshop on Factory Communication Systems (WFCS 2018) IoT applications - From a simple idea to in situ deployment in IoT, through lab experimentation in Imperia, Italy, June 2018
- Invited speaker at 4th International Workshop on Next Generation Green Wireless Networks (NextG-WiN 2016) in Dublin, Ireland, September 2016
- Invited speaker at Southeast University Seminar in Nanjing, China in June 2016
- Invited speaker "UCN@Sophia Labex seminar" Sophia Antipolis, April 2016,
- Invited speaker at "US-EU Workshop on the Next Generation Internet" à Los Angeles, March 2016,
- Invited speaker at Inria-Mexique meeting in Mexico, June 2015,
- Invited speaker at Berkeley-Inria-Stanford (BIS) Smart Cities in San Francisco, May 2015,

- Invited speaker Smart Cities event at Indian Institute of Information Technology in Allahabad, March 2015,
- Invited speaker at French-India Architecture and Technological Trends and Issues in New Generation Networks, New Delhi April 2014,
- Invited speaker at Stellenbosch University, November 2011, Stellenbosch, South Africa, “The Internet of Things” ,
- Invited speaker at Rescom School, 10 June 2011, Lille, France, “La plateforme SensLAB” ,
- Invited speaker at WMNC, Special session Internet of Things , 11 september 2009, Gdansk, Poland, “RFID middlewares” ,

## 10 Patents

- Procédé d’adhésion à une grappe de dispositifs électroniques communiquant via un réseau sans fil. Pascal Daragon, Natale Guzzo, Nathalie Mitton et Arulnambi Nandagoban. Submitted on 21 June 2014 and accepted in December 2015. *Exploited by the TRAXENS company.*
- Procédé d’affiliation à une grappe de dispositifs électroniques communiquant via un réseau sans fil. Pascal Daragon, Natale Guzzo, Nathalie Mitton et Arulnambi Nandagoban. Submitted on 27 November 2014. *Exploited by the TRAXENS company.*
- Procédé de communication au sein d’une grappe de profondeur dynamique de dispositifs électroniques communicants. Pascal Daragon, Natale Guzzo, Nathalie Mitton et Arulnambi Nandagoban. Submitted on 25 March 2015. *Exploited by the TRAXENS company.*
- Géolocalisation passive, non intrusive et mono-ancre par réseau de capteurs. Roudy Dagher et Nathalie Mitton. Submitted on 31 March 2015.

## 11 Publications

My publications are available here : [http://researchers.lille.inria.fr/mitton/publications\\_hal.html](http://researchers.lille.inria.fr/mitton/publications_hal.html).

### Peer-reviewed International revues

1. Brando Foubert, Nathalie Mitton “ ***RODENT: a flexible TOPSIS based routing protocol for multi-technologies devices in wireless sensor networks*** ”, *ITU Journal on Future and Evolving Technologies, ITU, 2021*
2. Christian Salim, Nathalie Mitton “ ***K-Predictions Based Data Reduction Approach in WSN for Smart Agriculture***”, *Computing, Springer Verlag, 2020*
3. Ana Elisa Ferreira, Fernando Ortiz, Lus Henrique M. K. Costa, Brandon Foubert, Ibrahim Amadou, Nathalie Mitton “ ***A study of the LoRa signal propagation in forest, urban, and suburban environments***”, *Annals of Telecommunications - annales des tlcommunications, Springer, 2020*
4. Dimitrios Dechouniotis, Nikolaos Athanasopoulos, Aris Leivadreas, Nathalie Mitton, Raphael Jungers, Symeon Papavassiliou “ ***Edge Computing Resource Allocation for Dynamic Networks: The DRUID-NET Vision and Perspective***”, *Sensors, MDPI, 2020, 20 (8)*
5. Brandon Foubert, Nathalie Mitton “ ***Long-Range Wireless Radio Technologies: A Survey***”, *Future Internet, MDPI, 2020, 12 (1)*

6. Farouk Mezghani, Nathalie Mitton “ **Opportunistic multi-technology cooperative scheme and UAV relaying for network disaster recovery**”, *Information, MDPI*, 2020, 11 (1)
7. Joo Pinto Neto, Lucas Gomes, Fernando Ortiz, Thales Almeida, Miguel Elias Mitre Campista, Luis Henrique Maciel Kosmowski Costa, Nathalie Mitton “ **An Accurate Cooperative Positioning System for Vehicular Safety Applications**”, *Computers and Electrical Engineering, Elsevier*, 2020, 83
8. Jad Nassar, Matthieu Berthom, Jrmly Dubrulle, Nicolas Gouvy, Nathalie Mitton, Bruno Quoitin “ **Multiple Instances QoS Routing In RPL: Application To Smart Grids**”, *Sensors, MDPI*, 2018, 18 (8)
9. Abdoul Aziz Mback, Nathalie Mitton, Herve Rivano “**A survey of RFID readers anticollision protocols**”, *IEEE Journal of Radio Frequency Identification, IEEE*, 2018, 2 (1), pp.11.
10. Arun Das, Arunabha Sen, Chunming Qiao, Nasir Ghani, Nathalie Mitton “**RAPTOR: a network tool for mitigating the impact of spatially correlated failures in infrastructure networks**”, *Annals of Telecommunications, Springer*, 2018
11. Farouk Mezghani, Nathalie Mitton “**Opportunistic Disaster Recovery**”, *Internet Technology Letters, Wiley*, 2018
12. Farouk Mezghani, Nathalie Mitton “**Alternative opportunistic alert diffusion to support infrastructure failure during disasters**”, *Sensors, MDPI*, 2017
13. Medeiros, Dianne S. V. and Elias Mitre Campista, Miguel and Mitton, Nathalie and Dias De Amorim, Marcelo and Pujolle, Guy “ **The Power of Quasi-Shortest Paths:  $\rho$ -Geodesic Betweenness Centrality**”, *IEEE Transactions on Network Science and Engineering*, 2017
14. Rekik, Mouna and Mitton, Nathalie and Chtourou, Zied “ **GRACO: a geographic GReedy routing with an ACO-based void handling technique**”, *International Journal of Sensor Networks*, 2017
15. Roberto Morabito, Riccardo Petrolo, Valeria Loscri, Nathalie Mitton “ **LEGIoT: a Lightweight Edge Gateway for the Internet of Things**”, *Future Generation Computer Systems, Elsevier*, 2017
16. Mbacké, Abdoul Aziz and Mitton, Nathalie and Rivano, Hervé “ **RFID Reader Anticollision Protocols for Dense and Mobile Deployments** ”, *MDPI Electronics Special Issue "RFID Systems and Applications"*, 2016
17. Erdelj, Milan; Mitton, Nathalie; Razafindralambo, Tahiry “ **Robust Wireless Sensor Network Deployment** ”, *Discrete Mathematics and Theoretical Computer Science (DMTCS)*, 2016, 17 (3), pp.105-130
18. Petrolo, Riccardo; Morabito, Roberto; Loscri, Valeria; Mitton, Nathalie “ **The design of the gateway for the Cloud of Things**”, *Annals of Telecommunications - annales des tlcommunications, Springer*, 2016
19. Wang, Yu; Zheng, Jun; Mitton, Nathalie. “**Delivery Delay Analysis for Roadside Unit Deployment in Vehicular Ad Hoc Networks with Intermittent Connectivity**”, *IEEE Transactions on Vehicular Technology* (2016).
20. Militano, Leonardo ; Erdelj, Milan; Molinaro, Antonella; Mitton, Nathalie; Iera, Iera. “**Recharging vs. Replacing Sensor Nodes Using Mobile Robots for Network Maintenance**”, *Telecommunications Systems* (2016).



21. Rekik, Mouna; Chtourou, Zied; Mitton, Nathalie; Atieh, Ahmad. **“Geographic routing protocol for the deployment of virtual power plant within the smart grid”**, *Sustainable Cities and Society, Elsevier* (2016).
22. Adjih, Cédric; Baccelli, Emmanuel; Fleury, Eric; Harter, Gaetan; Mitton, Nathalie; Noel, Thomas; Pissard-Gibollet, Roger; Saint-Marcel, Frederic; Schreiner, Guillaume; Vandaele, Julien; Watteyne, Thomas **“FIT IoT-LAB: A Large Scale Open Experimental IoT Testbed – A valuable tool for IoT deployment in Smart Factories”**, *IEEE ComSoc Multimedia Technical Committee E-Letter* (2015).
23. Fleury, Eric; Mitton, Nathalie; Noel, Thomas; Adjih, Cédric. **“FIT IoT-LAB: The Largest IoT Open Experimental Testbed”**, *ERCIM News* (2015).
24. Tonneau, Anne-Sophie; Mitton, Nathalie; Vandaele, Julien.. **“How to choose an experimentation platform for wireless sensor networks?”**, *Elsevier Adhoc networks*, 30:12, (2015).
25. Petrolo, Riccardo; Loscri, Valeria; Mitton, Nathalie, **“Towards a smart city based on cloud of things, a survey on the smart city vision and paradigms”**, *Transactions on Emerging Telecommunications Technologies* (2015)
26. Loscri, Valeria; Marchal, César; Mitton, Nathalie; Fortino, Giancarlo; Vasilakos, Athanasios, **“Security and Privacy in Molecular Communication and Networking: Opportunities and Challenges”**, *IEEE Transactions on NanoBioscience* (2014)
27. Petrolo, Riccardo; Loscri, Valeria; Mitton, Nathalie, **“Towards a Cloud of Things Smart City”**, *IEEE COMSOC MMTC E-Letter* (2014)
28. Schiele, Gregor; Soldatos, John; Mitton, Nathalie, **“Moving Towards Interoperable Internet-of-Things Deployments in Smart Cities”**, *Ercim News (98)* (2014)
29. Anciaux, Nicolas; Bouganin, Luc; Delot, Thierry; Ilarri, Sergio; Kloul, Leïa; Mitton, Nathalie; Pucheral, Philippe, **“Opportunistic Data Services in Least Developed Countries: Benefits, Challenges and Feasibility Issues”**, *ACM SIGMOD Record* (2014)
30. Ducrocq, Tony; Hauspie, Michaël; Mitton, Nathalie, **“Balancing energy consumption in clustered wireless sensor networks”**, *ISRN Sensor Networks* (2013)
31. Li, Xu; Mitton, Nathalie; Simplot-Ryl, Isabelle; Simplot-Ryl, David, **“Hypocomb: Bounded-degree Localized Geometric Planar Graphs for Wireless Ad Hoc Networks”**, *IEEE Transactions on Parallel and Distributed Systems (TPDS) - Spotlight Paper August 2012* (2013) **24, 7**
32. Mitton, Nathalie; Simplot-Ryl, David; Zheng, Jun, **“Guaranteed Delivery in k-Anycast Routing in Multi-Sink Wireless Networks”**, *ICST Mobile Communications and Applications* (2013)
33. Mitton, Nathalie; Razafindralambo, Tahiry; Simplot-Ryl, David; Stojmenovic, Ivan, **“Towards a Hybrid Energy Efficient Multi-Tree-Based Optimized Routing Protocol for Wireless Networks”**, *Sensors* (2013) **12**
34. Li, Xu; Mitton, Nathalie; Stojmenovic, Ivan; Nayak, Amiya, **“Achieving Load Awareness in Position-based Wireless Ad Hoc Routing”**, *Journal of Convergence (JOC)* (2012) **3, 3**
35. Gouvy, Nicolas; Hamouda Elhafs, Essia; Mitton, Nathalie; Simplot-Ryl, David, **“Minimising Energy Consumption through Mobility with Connectivity preservation in Sensor Networks”**, *The International Journal of Parallel, Emergent and Distributed Systems* (2012)

36. Li, Xu; Mitton, Nathalie; Simplot-Ryl, Isabelle; Simplot-Ryl, David, “***Dynamic Beacon Mobility Scheduling for Sensor Localization***”, *IEEE Transactions on Parallel and Distributed Systems (TPDS)* (2012) **23, 8**
37. Mitton, Nathalie; Papavassiliou, Symeon; Puliafito, Antonio; Trivedi, Kishor, “***Combining Cloud and sensors in a smart city environment***”, *EURASIP Journal on Wireless Communications and Networking* (2012) **1**
38. Delot, Thierry; Mitton, Nathalie; Ilarri, Sergio; Hien, Thomas, “***GeoVanet: A Routing Protocol for Query Processing in Vehicular Networks.***”, *Mobile Information Systems* (2011) **7, 4**
39. Gluhak, Alex; Krco, Srdjan; Nati, Michele; Pfisterer, Daniel; Mitton, Nathalie; Razafindralambo, Tahiry, “***A Survey on Facilities for Experimental Internet of Things Research***”, *IEEE Communications Magazine*, (2011) **49, 11**.
40. Mitton, Nathalie; Simplot-Ryl, David, “***From the Internet of things to the Internet of physical world***”, *Comptes rendus - Physique de l'Académie des sciences* (2011) **12**
41. Mitton, Nathalie; Sericola, Bruno; Tixeuil, Sébastien; Fleury, Eric; Guérin Lassous, Isabelle, “***Self-stabilization in Self-organized Wireless Multihop Networks***”, *Ad Hoc & Sensor Wireless Networks (AHSWN)* (2011) **11, 1-2**
42. Hamouda, Essia; Mitton, Nathalie; Pavkovic, Bogdan; Simplot-Ryl, David, “***Energy-aware Georouting with Guaranteed Delivery in Wireless Sensor Networks with Obstacles***”, *International Journal of Wireless Information Networks (IJWIN)*. (2009) **16, 3**
43. Mitton, Nathalie; Paroux, Katy; Sericola, Bruno; Tixeuil, Sébastien, “***Ascending runs in dependent uniformly distributed random variables: Application to wireless networks***”, *Methodology And Computing In Applied Probability* (2008) **0802.1387, 11009**
44. Mitton, Nathalie; Busson, Anthony; Fleury, Eric, “***Efficient Broadcasting in Self-Organizing Sensor Networks***”, *International Journal on Distributed Sensor Networks (IJDSN)* (2006) **2, 2**

### Peer-reviewed International Conferences

45. Christian Salim, Nathalie Mitton “***Image Similarity based Data Reduction Technique in Wireless Video Sensor Networks for Smart Agriculture***”, IEEE AINA, May 2021, Virtual
46. Roudy Dagher, Francois-Xavier Molina, Alexandre Abadie, Nathalie Mitton, Emmanuel Baccelli “***An Open Experimental Platform for Ranging, Proximity and Contact Event Tracking using Ultra-Wide-Band and Bluetooth Low-Energy***”, IEEE INFOCOM Workshop on Computer and Networking Experimental Research using Testbeds (CNERT), May 2021, Virtual
47. Brandon Foubert, Nathalie Mitton “***Lightweight network interface selection for reliable communications in multi-technologies wireless sensor networks***”, IEEE International Conference on the Design of Reliable Communication Networks (DRCN), April 2021, Virtual
48. Christian Salim, Nathalie Mitton “***On-Node Correlation Based Data Reduction in WSN for Smart Agriculture***”, IEEE ANTS, December 2020, Virtual
49. Morgan O’kennedy, Thomas Niesler, Riaan Wolhuter, Nathalie Mitton “***Practical evaluation of carrier sensing for a LoRa wildlife monitoring network***”, IFIP Networking, June 2020, Virtual
50. Christian Salim, Nathalie Mitton “***Multi-channel Distributed MAC protocol for WSN-based wildlife monitoring***”, IAINA 2020 - 34th International Conference on Advanced Information Networking and Applications, APRIL 2020, VIRTUAL

51. Farouk Mezghani, Nathalie Mitton “*Using Fuzzy Logic for data priority aware collection in RFID sensing wireless networks*”, Information and Communication Technologies for Disaster Management (ICT-DM), Dec. 2019, Paris, France.
52. Jelena Stanulovic, Nathalie Mitton, Ivan Mezei “*Robot Task Allocation based on Greedy-Face-Greedy Algorithm*”, Telecommunications Forum (TELFOR), Nov 2019, Belgrade, Serbia
53. Ibrahim Amadou, Brandon Foubert, Nathalie Mitton “*LoRa in a haystack: a study of the LoRa signal behavior*”, WiMob 2019 - 15th International Conference on Wireless and Mobile Computing, Networking and Communications, Oct 2019, Barcelona, Spain
54. Farouk Mezghani, Pranvera Kortoi, Nathalie Mitton, Mario Di Francesco “*Using Fuzzy Logic for data priority aware collection in RFID sensing wireless networks*”, PIMRC 2019 - IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Sep 2019, Istanbul, Turkey.
55. Francesca Guerriero, Luigi Di Puglia Pugliese, Nathalie Mitton “*Efficient wireless sensor deployment at minimum cost*”, AdHoc-Now 2019 - 18th International Conference on Ad Hoc Networks and Wireless, Oct. 2019, Luxembourg.
56. Antoine Gallais, Thin-Hinen Hedli, Valeria Loscri, Nathalie Mitton “*Denial-of-Sleep Attacks against IoT Networks*”, CoDIT 2019 - 6th International Conference on Control, Decision and Information Technologies, Apr 2019, Paris, France
57. Viktor Toldov, Laurent Clavier, Nathalie Mitton “*Multi-channel Distributed MAC protocol for WSN-based wildlife monitoring*”, WiMob 2018 - 14th International Conference on Wireless and Mobile Computing, Networking and Communications, Oct 2018, Limassol, CyprusSpain
58. Farouk Mezghani, Nathalie Mitton “*Open problem: Energy-and time-efficient dynamic drone path planning for post-disaster network servicing*”, ODS 2018 - International Conference on Optimization and Decision Science, Sep 2018, Taormina, Italy. 2018
59. Abdoul Aziz Mback, Nathalie Mitton, Herv Rivano “*Using Fuzzy Logic for data priority aware collection in RFID sensing wireless networks*”, PIMRC 2018 - IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Sep 2018, Bologne, Italy.
60. Abdoul Aziz Mback, Nathalie Mitton, Herv Rivano “*DACAR: Distributed & Adaptable Cross-layer Anticollision and Routing protocol for RFID*”, AdHoc-Now 2018 - 17th International Conference on Ad Hoc Networks and Wireless, Sep 2018, St Malo, France. 2018,
61. Farouk Mezghani, Nathalie Mitton “*Benchmarking smartphone performances for cooperative disaster alert diffusion*”, AdHoc-Now 2018 - 17th International Conference on Ad Hoc Networks and Wireless, Sep 2018, Saint Malo, France
62. Jad Nassar, Karen Miranda, Nicolas Gouvy, Nathalie Mitton “*Heterogeneous data reduction in WSN: Application to Smart Grids*”, SMARTOBJECTS 2018 - 4th Workshop on Experiences with the Design and Implementation of Smart Objects, Jun 2018, Los Angeles, California, United States
63. “*Dead Reckoning Using Time Series Regression Models*”, Joo Pinto Neto, Nathalie Mitton, Miguel Elias M. Campista, Lus Henrique M. K. Costa MobiHoc 2018 - 4th ACM MobiHoc Workshop on Experiences with the Design and Implementation of Smart Objects, Jun 2018, Los Angeles, United States. 18, 2018,
64. Jad Nassar, Nicolas Gouvy, Nathalie Mitton “*QoS-compliant Data Aggregation for Smart Grids*”, ENERGY 2018 - The Eighth International Conference on Smart Grids, Green Communications and IT Energy-aware Technologies, Nice, France (2018)

65. Mohamed El Amine Seddik, Viktor Toldov, Laurent Clavier, Nathalie Mitton “ ***From Outage Probability to ALOHA MAC Layer Performance Analysis in Distributed WSNs*** ”, IEEE Wireless Communications and Networking Conference (WCNC), Barcelona, Spain (2018)
66. Rekik, Mouna and Mitton, Nathalie and Chtourou, Zied “ ***QoS-aware routing for real-time and reliable wireless sensor network based Smart Grid NAN communications*** ”, IEEE Smart World Congress (SmartWorld), San Francisco, United States (2017)
67. Farouk Mezghani, Nathalie Mitton “ ***Opportunistic Alert Diffusion in Disaster Scenario - Stay Alive Longer !*** ”, IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Montreal, Canada (2017)
68. Merle, Philippe and Gourdin, Christophe and Mitton, Nathalie “***Mobile Cloud Robotics as a Service with OCCIware*** ”, IEEE International Congress on Internet of Things (ICIOT), Honolulu, Hawaii, United States (2017) **Best paper**
69. Morabito, Roberto and Petrolo, Riccardo and Loscri, Valeria and Mitton, Nathalie and Ruggeri, Giuseppe and Molinaro, Antonella “***Adaptive Filtering as a Service for Smart City Applications*** ”, International Symposium on Integrated Network Management (IM), Lisbon, Portugal (2017)
70. Wang, Zhenyu and Zheng, Jun and Wu, Yuying and Mitton, Nathalie “***A Centrality-based RSU Deployment Approach for Vehicular Ad Hoc Networks*** ”, IEEE International Conference on Communication 2017 Ad-Hoc and Sensor Networking Symposium (ICC), Paris, France (2017)
71. Petrolo, Riccardo and Loscri, Valeria and Mitton, Nathalie and Herrmann, Elisa “***Adaptive Filtering as a Service for Smart City Applications*** ”, IEEE International Conference on Networking, Sensing and Control (ICNSC), Cosenza, Italy (2017)
72. Mbacké, Abdoul Aziz and Mitton, Nathalie and Rivano, Hervé “ ***RFID Anticollision in Dense Mobile Environments***”, IEEE Wireless Communications and Networking Conference (WCNC), San Francisco, USA (2017)
73. Morabito, Roberto and Petrolo, Riccardo and Loscri, Valeria and Mitton, Nathalie “***Demo: Design of a Virtualized Smart Car Platform*** ”, International conference on embedded wireless systems and networks (EWSN), Uppsala , Sweden (2017)
74. Vandaële, Julien and Duquennoy, Simon and Mitton, Nathalie “***Demo: Large-scale Sensing, Mobility, and Monitoring with the FIT IoT-LAB Testbed*** ”, International conference on embedded wireless systems and networks (EWSN), Uppsala , Sweden (2017)
75. Merle, Philippe and Gourdin, Christophe and Mitton, Nathalie “***Mobile Cloud Robotics as a Service with OCCIware*** ”, IEEE International Congress on Internet of Things (ICIOT),Honolulu, Hawaii, United States (2017)
76. Mbacké, Abdoul Aziz and Mitton, Nathalie and Rivano, Hervé “ ***Data gathering solutions for dense RFID deployments***”, IEEE International Conference on Ubiquitous Intelligence and Computing (UIC), San Francisco, USA (2017)
77. Rekik, Mouna and Mitton, Nathalie and Chtourou, Zied “ ***QoS-aware routing for real-time and reliable wireless sensor network based Smart Grid NAN communications***”, IEEE Smart World Congress (SmartWorld 2017), San Francisco, USA (2017)

78. Morabito, Roberto and Petrolo, Riccardo and Loscri, Valeria and Mitton, Nathalie and Ruggeri, Giuseppe and Molinaro, Antonella “ ***Enabling a lightweight Edge Gateway-as-a-Service for the Internet of Things***”, International Conference on Network of the Future (NoF), Buzios, Rio de Janeiro, Brazil (2017)
79. Morabito, Roberto; Petrolo, Riccardo; Loscri, Valeria; Mitton, Nathalie “ ***Lightweight Virtualization as Enabling Technology for Future Smart Cars*** ”, International Symposium on Integrated Network Management (IM), Lisbon, Portugal (2016)
80. Sen, Arunabha ; Das, Arun; Zhou, Chenyang; Mazumder, Anisha ; Mitton, Nathalie; Mback, Abdoul Aziz“***Reader Scheduling for Tag Access in RFID Systems***”, International Conference on Network of the Future (NoF), Buzios, Rio de Janeiro, Brazil (2016)
81. Medeiros, Dianne S. V.; Campista, Miguel Elias; Mitton, Nathalie; Dias de Amorim, Marcello; Pujolle, Guy “***Weighted Betweenness for Multipath Networks***”, Global Information Infrastructure and Networking Symposium (GIIS), Porto, Portugal (2016)
82. Mback, Abdoul Aziz; Mitton, Nathalie; Rivano, Herv “***Distributed Efficient & Fair Anticollision for RFID protocol***”, International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), New York, United States. (2016)
83. Toldov, Viktor; Clavier, Laurent ; Loscr, Valeria; Mitton, Nathalie “***A Thompson Sampling Approach to Channel Exploration-Exploitation Problem in Multihop Cognitive Radio Networks***”, International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Valencia, Spain (2016) **Best paper**
84. Petrolo, Riccardo; Roukounaki, Aikaterini ; Loscri, Valeria; Mitton, Nathalie; Soldatos, John “***Connecting physical things to a SmartCity-OS***”, International IEEE SECON Workshop on Toward a city-wide pervasive environment (CowPer), London, United Kingdom (2016)
85. Toldov, Viktor; Igual-Prez, Romn ; Vyas, Rahul; Bo, Alexandre ; Clavier, Laurent ; Mitton, Nathalie “***Experimental Evaluation of Interference Impact on the Energy Consumption in Wireless Sensor Networks*** ”, International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), Coimbra, Portugal (2016)
86. Toldov, Viktor; Meijers, JP; Igual-Prez, Romn ; Wolhuter, Riaan; Mitton, Nathalie; Clavier, Laurent “***Performance evaluation of LoRa radio solution for PREDNET wildlife animal tracking project***” LPWAN, Paris Roissy, France (2016)
87. Petrolo, Riccardo; Guzzo Bonifacio, Salvatore; Loscri, Valeria; Mitton, Nathalie “***The discovery of relevant data-sources in a Smart City environment***”, International IEEE SMARTCOMP Workshop on Sensors and Smart Cities (SSC), St. Louis, Missouri, United States (2016)
88. Petrolo, Riccardo; Loscri, Valeria; Mitton, Nathalie “***Confident-based Adaptable Connected objects discovery to HARmonize smart City Applications.***”, IFIP Wireless Days (WD), Toulouse, France (2016)
89. Maskooki, Arash; Toldov, Viktor; Clavier, Laurent; Loscri, Valeria; Mitton, Nathalie “***Competition: Channel Exploration/Exploitation Based on a Thompson Sampling Approach in a Radio Cognitive Environment.***”, International Conference on Embedded Wireless Systems and Networks (dependability competition) (EWSN), Graz Austria (2016)

90. Das, Arun; Sen, Arunabha; Qiao, Chunming, Ghani, Nasir, Mitton, Nathalie. “***A Network Planning and Management Tool for Mitigating the Impact of Spatially Correlated Failures in Infrastructure Networks.***”, International Conference on Design of Reliable Communication Networks (DRCN), Paris, France (2016)
91. Das, Arun; Sen, Arunabha; Mitton, Nathalie; Mazumder, Anisha. “***On Mobile Sensor Data Collection Using Data Mules***”, 9th International Workshop on Wireless Sensor, Actuator and Robot Networks (WiSARN) Kauai, United States (2016)
92. Adjih, Cédric; Baccelli, Emmanuel; Fleury, Eric; Harter, Gaetan; Mitton, Nathalie; Noel, Thomas; Pissard-Gibollet, Roger; Saint-Marcel, Frederic; Schreiner, Guillaume; Vandaele, Julien; Watteyne; Thomas “***FIT IoT-LAB: A Large Scale Open Experimental IoT Testbed***”, IEEE World Forum on Internet of Things (IEEE WF-IoT) Milan, Italy (2015)
93. Miranda, Karen; Mitton, Nathalie; Ramos, Victor. “***An autoregressive estimator for overhead reduction in Substitution Networks***”, International Conference on Next Generation Mobile Applications, Services and Technologies (NGMAST) Cambridge, United Kingdom (2015)
94. Loscri, Valeria; Guzzo Bonifacio, Salvatore; Mitton, Nathalie; Fiorenza, Simone. “***Associative Search Network for RSSI-based Target Localization in Unknown Environments***”, International Conference on Ad Hoc Networks (AdHocNets) San Remo, Italy (2015)
95. Amadou, Ibrahim; Mitton, Nathalie. “***HAMAC: High Adaptive MAC Protocol for DenseRFID reader-to-reader Networks***”, International Conference on Ad Hoc Networks (AdHocNets) San Remo, Italy (2015)
96. Dagher, Roudy; Mitton, Nathalie. “***Online Path Loss Estimation for Localization Using Large Aperture Array Signal Processing***”, 23rd European Signal Processing Conference (EUSIPCO) Nice, France (2015)
97. Quilez, Roberto; Zeeman, Adriaan; Mitton, Nathalie; Vandaele, Julien. “***Docking autonomous robots in passive docks with Infrared sensors and QR codes***”, International Conference on Testbeds and Research Infrastructures for the Development of Networks & Communities (TridentCOM) Vancouver, Canada (2015)
98. Rekik, Mouna; Chtourou, Zied; Mitton, Nathalie. “***A Scalable Geographic Routing Protocol for Virtual Power Plant Communications***”, The 15 IEEE International Conference on Environment and Electrical Engineering (EEEIC) Rome, Italy (2015)
99. Rekik, Mouna; Chtourou, Zied; Mitton, Nathalie. “***Geographic Routing Protocol for Peer-to-Peer Smart Grid Neighborhood Area Network***”, The 15 IEEE International Conference on Environment and Electrical Engineering (EEEIC) Rome, Italy (2015)
100. Rekik, Mouna; Chtourou, Zied; Mitton, Nathalie. “***Geographic GReedy routing with ACO recovery strategy GRACO***”, Ad Hoc Now Athens, Greece (2015)
101. Roukounaki, Aikaterini; Soldatos, John; Petrolo, Riccardo; Loscri, Valeria; Mitton, Nathalie; Serrano, Martin. “***Visual Development Environment for Semantically Interoperable Smart Cities Applications***”, EAI International Conference on Interoperability in IoT (InterIoT) Roma, Italy, (2015)
102. Miranda, Karen; Mitton, Nathalie; Razafindralambo, Tahiry, “***On the Impact of Routers’ Controlled Mobility in Self-Deployable Networks***”, International Conference on Adaptive and Self-Adaptive Systems and Applications (ADAPTIVE) Nice, France (2015)



103. Rekik, Mouna; Chtourou, Zied; Mitton, Nathalie, “*Performance and Applicability of a new Geographic Routing Protocol for Virtual Power Plants*”, International Renewable Energy Congress (IREC) Sousse, Tunisia (2015)
104. Wang, Yu; Zheng, Jun; Mitton, Nathalie, “*Delivery Delay Analysis for Roadside Unit Deployment in Intermittently Connected VANETs*”, Global Communication Conference (GlobeCom) Austin, United States (2014)
105. Zema, Nicola; Mitton, Nathalie; Ruggeri, Giuseppe, “*A GPS-less on-demand mobile sink-assisted data collection in wireless sensor networks*”, Wireless Days (WD) Rio de Janeiro, Brazil (2014)
106. Mitton, Nathalie; Rivano, Hervé, “*On the Use of City Bikes to Make the City Even Smarter*”, International SMARTCOMP Workshop on Sensors and Smart Cities (SSC) Hong-Kong, China (2014)
107. Guzzo, Natale; Mitton, Nathalie; Daragon, Pascal; Nandagoban, Arulnambi, “*A Cluster-based and On-demand routing algorithm for Large-Scale Multi-hop Wireless Sensor Networks*”, International Conference on Ad Hoc Networks (AdHocNets) Rhodes, Greece (2014)
108. Zema, Nicola; Mitton, Nathalie; Ruggeri, Giuseppe, “*Using location services to autonomously drive flying mobile sinks in Wireless Sensor Networks*”, International Conference on Ad Hoc Networks (AdHocNets) Rhodes, Greece (2014)
109. Petrolo, Riccardo; Loscri, Valeria; Mitton, Nathalie, “*Towards a Smart City based on Cloud of Things*”, International ACM MobiHoc Workshop on Wireless and Mobile Technologies for Smart Cities (WiMobCity) Philadelphia, United States (2014)
110. Petrolo, Riccardo; Loscri, Valeria; Mitton, Nathalie, “*Integrating Wireless Sensor Networks within a City Cloud*”, International IEEE SECON Workshop on Self-Organizing Wireless Access Networks for Smart City (SWANSITY) Singapore, Singapore (2014)
111. Loscri, Valeria; Mitton, Nathalie; Compagnone, Emilio, “*OpenCV WebCam Applications in an Arduino-based Rover*”, International Workshop on Wireless Sensor, Actuator and Robot Networks (WiSARN) Benidorm, Spain (2014)
112. Petrolo, Riccardo; Delot, Thierry; Mitton, Nathalie; Molinaro, Antonella; Campolo, Claudia, “*OSPIN: an Opportunistic Data Dissemination Protocol for Folk-enabled Information System in Least Developed Countries*”, International Conference on Ad-Hoc Networks and Wireless (AdHocNow) Benidorm, Spain (2014)
113. Amadou, Ibrahim; Mbacké, Abdoul-Aziz; Mitton, Nathalie, “*How to improve CSMA-based MAC protocol for dense RFID reader-to-reader Networks?*”, International Conference on Ad-Hoc Networks and Wireless (AdHocNow) Benidorm, Spain (2014)
114. Anciaux, Nicolas; Bouganim, Luc; Delot, Thierry; Ilarri, Sergio; Kloul, Leïla; Mitton, Nathalie; Pucheral, Philippe, “*Folk-IS: Opportunistic Data Services in Least Developed Countries*”, International Conference on Very Large Data Bases (VLDB) Hangzhou, Chine (2014)
115. Tonneau, Anne-Sophie; Mitton, Nathalie; Vandaele, Julien, “*A Survey on (mobile) wireless sensor network experimentation testbeds*”, IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS) Marina Del Rey, United States (2014)
116. Xu, Wu; Zheng, Jun; Tong, Hui; Mitton, Nathalie, “*DAYcast: A Dynamic Transmission Delay Based Broadcast Protocol for Vehicular Ad Hoc Networks*”, IEEE International Conference on Communications (ICC) Sydney, Australie (2014)

117. Ducrocq, Tony; Hauspie, Michael; Mitton, Nathalie; Pizzi, Sara, “*On the Impact of Network Topology on Wireless Sensor Networks Performances Illustration with Geographic Routing*”, Workshop on Performance Analysis and Enhancement of Wireless Networks (PAEWN) Victoria, Canada (2014)
118. Loscri, Valeria; Natalizio, Enrico; Mitton, Nathalie, “*Performance Evaluation of Novel Distributed Coverage Techniques for Swarms of Flying Robots*”, IEEE Wireless Communications and Networking Conference (WCNC) Istanbul, Turquie (2014)
119. Dagher, Roudy; Mitton, Nathalie; Amadou, Ibrahim, “*Towards WSN-aided Navigation for Vehicles in Smart Cities: An Application Case Study.*”, IEEE Percom Workshop on Pervasive Systems for Smart Cities (PerCity) Budapest, Hongrie (2014)
120. Riahi, Arbia; Natalizio, Enrico; Challal, Yacine; Mitton, Nathalie; Iera, Antonio, “*A systemic and cognitive approach for IoT security*”, International Conference on Computing, Networking and Communications (ICNC) Honolulu, États-Unis (2014)
121. Ducrocq, Tony; Hauspie, Michael; Mitton, Nathalie, “*Geographic Routing with Partial Position Information*”, International Conference on Sensor Networks (SensorNets) Lisbon Portugal (2014)
122. Amadeo, Marica; Campo, Claudia; Molinaro, Antonella; Mitton, Nathalie, “*Named Data Networking: a Natural Design for Data Collection in Wireless Sensor Networks*”, IEEE Wireless Days (WD) Valencia, Espagne (2013)
123. He, Danping; Mitton, Nathalie; Simplot-Ryl, David, “*An Energy Efficient Adaptive HELLO Algorithm for Mobile Ad Hoc Networks*”, ACM/IEEE International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM) Barcelona, Espagne (2013)
124. Shu, Qihang; Hu, Qiang; Zheng, Jun; Mitton, Nathalie, “*A Dependable Slepian-Wolf Coding Based Clustering Algorithm for Data Aggregation in Wireless Sensor Networks*”, International Conference on Wireless Communications and Signal Processing (WCSP) Hangzhou, Chine (2013)
125. Zheng, Jun; Huang, Zhenzhong; Shu, Qihang; Mitton, Nathalie, “*A Distributed Rate Allocation Algorithm for Slepian-Wolf Coding based Data Aggregation in Wireless Sensor Networks*”, International Conference on Wireless Communications and Signal Processing (WCSP) Hangzhou, Chine (2013)
126. Amadou, Ibrahim; Mitton, Nathalie, “*Revisiting Backoff algorithms in CSMA/CA based MAC for channel Reservation in RFID reader Networks through broadcasting*”, International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob) Lyon, France (2013)
127. Gouvy, Nicolas; Mitton, Nathalie; Zheng, Jun, “*Greedy Routing Recovery Using Controlled Mobility in Wireless Sensor Networks*”, International Conference on Ad Hoc Networks and Wireless (AdHocNow) Wroclaw, Pologne (2013)
128. Mitton, Nathalie; Natalizio, Enrico; Wolhuter, Riaan, “*Beacon-less mobility assisted energy efficient georouting in energy harvesting actuator and sensor networks*”, International Conference on Ad Hoc Networks and Wireless (AdHocNow) Wroclaw, Pologne (2013)
129. Botta, Miroslav; Simek, Milan; Mitton, Nathalie, “*Comparison of Hardware and Software Based Encryption for Secure Communication in Wireless Sensor Networks*”, International Conference on Telecommunications and Signal Processing (TSP) Rome, Italie (2013)



130. Wu, Xu; Tong, Hui; Mitton, Nathalie; Zheng, Jun, “*MEDAL: a moving direction and destination location based routing algorithm for vehicular ad hoc networks*”, IEEE International Conference on Communications (ICC) Budapest, Hongrie (2013)
131. Ducrocq, Tony; Mitton, Nathalie; Hauspie, Michaël, “*Energy-based Clustering for Wireless Sensor Network Lifetime Optimization*”, IEEE Wireless Communications and Networking Conference (WCNC) Shanghai, Chine (2013)
132. Gouvy, Nicolas; Hamouda Elhafsi, Essia; Zorbas, Dimitrios; Mitton, Nathalie, “*Energy Efficient Multi-Flow Routing in Mobile Sensor Networks.*”, IEEE Wireless Communications and Networking Conference (WCNC) Shanghai, Chine (2013)
133. Jumira, Oswald; Wolhuter, Riaan; Mitton, Nathalie, “*Prediction Model For Solar Energy Harvesting Wireless Sensors*”, International IEEE EAI Conference on Infrastructure and e-Services for Developing Countries (Africomm) Yaoundé, Cameroun (2012)
134. Radak, Jovan; Mitton, Nathalie, “*Transmission Power Adaptation Based Energy Efficient Neighborhood Discovery*”, ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWIM) Paphos, Chypre (2012)
135. Pieterse, Johan; Mitton, Nathalie; Wolhuter, Riaan, “*Implementation and Analysis of FMIPv6, an Enhancement of MIPv6*”, International Conference on Ad Hoc Networks (AdHocNets) Paris, France (2012)
136. Mitton, Nathalie; Simplot-Ryl, David; Voge, Marie-Emilie; Zhang, Lei, “*Energy efficient k-anycast routing in multi-sink wireless networks with guaranteed delivery*”, International Conference on Ad-Hoc Networks and Wireless (AdHocNow) Belgrade Serbie (2012)
137. Pavkovic, Bogdan; Radak, Jovan; Mitton, Nathalie; Rousseau, Franck; Stojmenovic, Ivan, “*Emulation of Large Scale Wireless Sensor Networks: From Real Neighbors to Imaginary Destination*”, International Conference on Ad-Hoc Networks and Wireless (AdHocNow) Belgrade, Serbie (2012)
138. Hamouda, Essia; Mitton, Nathalie; Simplot-Ryl, David, “*An Optimal Scheduling Policy for a Multi-flow Priority Queue with Multiple Paths*”, International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS) Genoa, Italie (2012)
139. Li, Xu; Mitton, Nathalie; Nayak, Amiya; Stojmenovic, Ivan, “*Localized Load-aware Geographic Routing in Wireless Ad Hoc Networks*”, IEEE International Conference on Communications - Wireless Networks Symposium (ICC-WN) Ottawa, Canada (2012)
140. Quilez, Roberto; Mitton, Nathalie; Dias De Amorim, Marcelo; Pauvre, Nicolas, “*Prototyping a Multi-Root ONS*”, IEEE Wireless Communications and Networking Conference - Internet of Things Enabling Technologies 2012 (WCNC - IOT-ET) Paris, France (2012)
141. Zhang, Lei; Mitton, Nathalie, “*Advance Internet of Things*”, iThings Dalian, Chine (2011)
142. Li, Xu; Mitton, Nathalie; Simplot-Ryl, Isabelle; Simplot-Ryl, David, “*Mobile-Beacon Assisted Sensor Localization with Dynamic Beacon Mobility Scheduling*”, IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS) Valencia, Espagne (2011)
143. Hamouda, Essia; Mitton, Nathalie; Simplot-Ryl, David, “*Reader Anti-Collision in Dense RFID Networks With Mobile Tags*”, IEEE International Conference on RFID-Technologies and Applications (RFID-TA) Barcelona, Espagne (2011)

144. Schmidt, Loïc; Mitton, Nathalie; Simplot-Ryl, David; Dagher, Roudy; Quilez, Roberto, “*DHT-based distributed ALE engine in RFID Middleware*”, IEEE International Conference on RFID-Technologies and Applications (RFID-TA) Barcelona, Espagne (2011)
145. Gouvy, Nicolas; Mitton, Nathalie, “*MobileR : Multi-hop energy efficient localised mobile georouting in wireless sensor and actuator networks*”, International ICST Conference on Ad Hoc Networks (AdHocNets) Paris, France (2011)
146. Hamouda, Essia; Mitton, Nathalie; Simplot-Ryl, David, “*Energy Efficient Mobile Routing in Actuator and Sensor Networks with Connectivity preservation.*”, International Conference on Ad Hoc Networks and Wireless (AdHocNow) Padderborn, Allemagne (2011)
147. Radak, Jovan; Mitton, Nathalie; Simplot-Ryl, David, “*Using Battery Level as Metric for Graph Planarization*”, International Conference on Ad Hoc Networks and Wireless (AdHocNow) Padderborn, Allemagne (2011)
148. Razafindralambo, Tahiry, M.; Begin, Thomas; Dias De Amorim, Marcelo; Guérin-Lassous, Isabelle; Mitton, Nathalie; Simplot-Ryl, David, “*Promoting Quality of Service in Substitution Networks with Controlled Mobility*”, International Conference on Ad Hoc Networks and Wireless (AdHocNow) Padderborn, Allemagne (2011)
149. Delot, Thierry; Mitton, Nathalie; Ilarri, Sergio; Hien, Thomas, “*Decentralized pull-based information gathering in vehicular networks using GeoVanet*”, International Conference on Mobile Data Management (MDM) Lulea, Suède (2011)
150. Li, Xu; Mitton, Nathalie; Simplot-Ryl, David, “*Mobility Prediction Based Neighborhood Discovery in Mobile Ad Hoc Networks.*”, Networking Valencia, Espagne (2011)
151. Burin Des Rosiers, Clément; Chelius, Guillaume; Ducrocq, Tony; Fleury, Eric; Fraboulet, Antoine; Gallais, Antoine; Mitton, Nathalie; Noël, Thomas; Vandaële, Julien, “*Using SensLAB as a First Class Scientific Tool for Large Scale Wireless Sensor Network Experiments*”, Networking Valencia, Espagne (2011)
152. Burin Des Rosiers, Clément; Chelius, Guillaume; Fleury, Eric; Fraboulet, Antoine; Gallais, Antoine; Mitton, Nathalie; Noël, Thomas, “*SensLAB Very Large Scale Open Wireless Sensor Network Testbed*”, International ICST Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCOM) Shanghai, Chine (2011)
153. Li, Xu; Mitton, Nathalie; Simplot-Ryl, Isabelle; Simplot-Ryl, David, “*A Novel Family of Geometric Planar Graphs for Wireless Ad Hoc Networks*”, Proc. IEEE International Conference on Computer Communications (INFOCOM) Shanghai, Chine (2011)
154. Carneiro Viana, Aline; Mitton, Nathalie; Schmidt, Loic; Vecchio, Massimo, “*A k-layer self-organizing structure for product management in stock-based networks*”, IEEE International Conference on e-Business Engineering (ICEBE) Shanghai, Chine (2010)
155. Ahmad Kassem, Ahmad; Mitton, Nathalie, “*Adapting dynamically neighbourhood table entry lifetime in wireless sensor networks*”, International Conference on Wireless Communications and Signal Processing (WCSP) Suzhou, Chine (2010) **Best paper**
156. Gongjun, Yan; Mitton, Nathalie; Li, Xu, “*Reliable Routing in Vehicular Ad hoc Networks.*”, International Workshop on Wireless Ad hoc and Sensor Networking (WWASN) Genoa, Italie (2010)
157. Khadar, Fadila; Mitton, Nathalie; Simplot-Ryl, David, “*Towards an efficient QoS based selection of neighbors in QOLSR*”, International Workshop on Sensor Networks (SN) Genoa, Italie (2010)

158. Razafindralambo, Tahiry; Mitton, Nathalie; Viana, Aline Carneiro; Dias De Amorim, Marcelo; Obraczka, Katia, “*Adaptive Deployment for Pervasive Data Gathering in Connectivity-Challenged Environments*”, IEEE International Conference on Pervasive Computing and Communications (PERCOM) Mannheim, Allemagne (2010)
159. Lukic, Milan; Pavkovic, Bogdan; Mitton, Nathalie; Stojmenovic, Ivan, “*Greedy geographic routing algorithms in a real environment*”, International Conference on Mobile Ad-hoc and Sensor Networks (MSN) Wu Yi Mountain, Chine (2009)
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