

KATIA JAFFRÈS-RUNSER, PhD.

Associate Professor (Maître de conférences)

University of Toulouse, Institut National Polytechnique, ENSEEIHT - IRIT laboratory, CNRS UMR 5055.

September 2011 - now Associate Professor at University of Toulouse, INPT ENSEEIHT
1st semester 2011 Post-doc at Inria - CITI laboratory / INSA Lyon, France
2010 Post-doc at CITI laboratory / INSA Lyon, France, *FP6 Marie-Curie Fellowship*
2006 - 2009 Post-doc, Stevens Institute of Technology, USA, *FP6 Marie-Curie Fellowship - ONR*
2002 - 2005 Graduate Student, INSA Lyon and INRIA, France.

EDUCATION

2005 PhD in Computer Science at Institut National des Sciences Appliquées de Lyon (INSA), France
Graduated with *Félicitations du jury*
2002 MSc. Medical Imaging (DEA), INSA Lyon, France
2002 Master of Engineering in Telecommunications, INSA Lyon, France

DISTINCTIONS AND PRIZES

Jun. 2010 Best PhD Presentation Award for the work of Anya Apavatjirut at *IEEE WoWMoM*
Jun. 2006 Excellence **FP6 Marie Curie International Outgoing Fellowship** from European Union
for the project "Distributed Multiobjective Optimization for ad hoc Wireless Networks"
Apr. 2003 Best Paper Award on Propagation at IEE Intl. Conference on Antennas and Propagation

RESEARCH INTERESTS

- Network and fountain codes for WSNs and DTNs
- Performance evaluation of wireless networks (ad hoc networks, WSNs, WLANs, wireless embedded systems)
- Game theory applied to wireless networks (mostly WSNs and cognitive radio)

SCIENTIFIC PUBLICATIONS

I have co-authored 22 articles in the last 5 years: 5 journals, 2 chapters in the book 'Network Coding', 12 intl conferences and 3 national conferences (cf. <http://www.irit.fr/~Katia.Jaffres/references.html> for details). Selected papers:

- 1- "Toward Increasing Packet Diversity for Relaying LT Fountain Codes in Wireless Sensor Networks",
in *IEEE Communications Letters*, Vol. 15, No 1, January 2011, pp. 52-54
- 2- "Energy Efficient Authentication Strategies for Network Coding",
in *Wiley Concurrency and Computation: Practice and Experience*, Vol. 24, No 10, July 2012, pp. 1086-1107
- 3- "An Auction-based Mechanism for Cooperative Sensing in Cognitive Networks",
accepted for publication in *IEEE Transactions on Wireless Communications*.
- 4- "Authentication planning for XOR network coding in wireless sensor networks",
in *International Symposium on Network Coding (NetCod)*, July 2011, Beijing, China.
- 5- "Combining LT codes and XOR network coding for reliable and energy efficient transmissions in WSN",
in *Proceeding of 35th IEEE Sarnoff Symposium 2012*, May 21-22, 2012, Newark, NJ, USA.

RECENT PROJECTS

- **GreenTouch** Member of *Consortium GreenTouch* in 2011 for Inria (<http://www.greentouch.org/>),
- **DistMO4WNet** Principal Researcher for the project funded by European FP6 Marie Curie IOF program
- **ONR, USA** Researcher in project #N00014-06-1-0063, at Stevens Institute of Technology

PHD. STUDENTS

Sept. 2011 - 2014	Mrs. Nesrine Badache	PhD candidate, University of Toulouse,
Sept. 2011 - 2014	M. Abdelaziz Ahmednacer	PhD candidate, University of Toulouse,
Dec. 2010 - 2014	Mrs. Qi. Wang	PhD candidate, Chinese academy of science
2008-2012	Mrs. Mary Schurgot	PhD at Stevens I.T. ; now with LGS Bell Labs Innovations, NJ, USA
2008-2011	Mrs. Anya Apavatjirut	PhD at INSA Lyon ; now Lecturer at Chiang Mai University, Thailand

INTERNATIONAL COLLABORATIONS

Stevens Institute of Technology, USA	Cristina Comaniciu
Colorado School of Mines, USA	Tracy Camp
ICT / Chinese Academy of Science	Li ZhongCheng, Sun Yi
Universidade Federal de Minas Gerais, Brasil	Pedro Olmo Vaz de Melo, Antonio F. Loureiro