

Curriculum Vitae

PERSONAL INFORMATION

Family name, First name: **SASSATELLI Gilles**

Date of birth: **August 27, 1972**

URL for web site: <http://www.lirmm.fr/~sassate>

• EDUCATION

- 2010 Accreditation to supervise research (*Habilitation*¹) – February 25, 2010
 Adaptation in embedded computing systems
 University of Montpellier 2, France
- 2002 PhD in Microelectronics – April 4, 2002
 Dynamically reconfigurable architectures for Systems-on-Chips
 Electrical Engineering and control automation, University of Montpellier 2, France
- 1999 Master in Microelectronics and Control Automation
 Electrical Engineering and Control Automation, University of Montpellier 2, France

• CURRENT POSITION(S)

- 2010 – current **CNRS Research director² (DR1: Directeur de recherche 1^{ère} classe since 2017)**
 LIRMM, CNRS/University of Montpellier, France

• PREVIOUS POSITIONS

- 2002 –2009 **CNRS Research scientist**
 LIRMM, CNRS/University of Montpellier 2, France
- 2002(one year) **Assistant Professor**
 MicroElectronic Systems Institute (MES), Darmstadt University of Technology, Germany

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

Ph.D. theses:

As supervisor/principal advisor: 15 defended

As co-supervisor: 15 defended, 2 with universities abroad (Switzerland, Brazil)

Postdocs: 8 postdoctoral research fellows supervised (12 to 18 months contracts)

Masters: ~30 master theses from local Master program and foreign universities (mostly Germany, Brazil, India, Ukraine)

• TEACHING ACTIVITIES (principal)

- 2013 – 2015 **Visiting lecturer** – 1-week block course (*Graduate, 25h/year*) on Digital systems design, Embedded Systems Master program, University of Sciences and Technology of Hanoi (USTH), Vietnam
- 2004 – current **Lecturer** – Winter semester course (*Graduate, 12h/year*) on Hardware description languages – Master of Microelectronic systems, Montpellier, France
- 2003 – 2009 **Visiting lecturer** – 3-week block course (*Graduate, 42h/year*) on Reconfigurable Computing, Information and Communication Engineering Master program (iCE), Darmstadt University of Technology, Germany

¹ Academic qualification required for the supervision of Ph.D. candidates, obtained after defending a thesis outlining strong record of research.

² CNRS is the largest governmental research organisation in France. CNRS Research Director positions are aligned to Full Professor positions at the University, through a however very competitive national recruitment campaign.

- **RESEARCH INTERESTS (past to recent)**

- **Adaptive embedded systems:** Exploration of hardware and monitoring techniques, control systems (control loops, stochastic, machine learning) and hardware and software actuators.
- **High performance embedded systems:** Architecture of heterogeneous multicore / multiprocessor compute system, communication architectures and emerging memory technologies.
- **Proactive energy management:** Novel techniques for energy management s.a. proactive energy routing, energy transport & storage. Applications to compute clusters & datacenters for more sustainable IT.
- **Embedded AI & AI for embedded:** Techniques for embedded AI, digital & emerging (analog, EBM), AI in runtimes for bettering efficiency, AI for CAD / DSE.

- **ORGANISATION OF SCIENTIFIC MEETINGS (excerpt)**

- 2021 **Special day chair** (Sustainable high-performance computing), IEEE Design, Automation and Test in Europe (DATE 2021)
- 2005-2019 **Co-founder³** of the Reconfigurable Communication-centric System-on-Chips Symposium (ReCoSoC, IEEE CASS), **general co-chair** of the 2005-2007, 2011 and 2014 editions, **program co-chair** of the 2017 edition (~100 participants),
- 2018-current **Topic A6 co-chair** (adaptive systems), IEEE Design, Automation and Test in Europe (DATE 2019, DATE 2020)
- 2013 **Program co-chair**, IEEE Annual Symposium on VLSI (ISVLSI 2013), Brazil (~150 participants)
- 2012 **Track co-chair**, IEEE/ACM Symposium on Integrated Circuits and Systems Design (SBCCI), Brazil (~150 participants)
- 2008-2009 **Track co-chair**, IEEE Intl. Conference on ReConFigurable Computing (Reconfig), Mexico (~150 participants)
- 2008 **General co-chair**, IEEE Symposium on Industrial Embedded Systems (SIES'2008), France (~100 participants)
- 2008 **Track co-chair**, IEEE Field Programmable Logic Conference (FPL 2008), Germany (~250 participants)
- 2004-current **Member of the PC committees** of several international conferences (~10), regularly serving as session chair in those conferences and others.

- **INSTITUTIONAL RESPONSIBILITIES (excerpt)**

- 2021 – current **President, Scientific Council of the national CNRS INS2I institute⁴**, CNRS, Paris, FR
- 2019 – 09/2021 **Nominated member, Scientific Council of the national CNRS INS2I institute⁵**, CNRS, Paris, FR
- 2019 – current **Co-Chair of “Embedded AI” track** of the SoC community network
- 2018 – current **Policy officer for technology transfer**, LIRMM, CNRS/University of Montpellier, FR
- 2016 – 2017 **Vice-head microelectronics Department**, LIRMM, CNRS/University of Montpellier, FR
- 2013 – 2015 **Elected Member**, Scientific council, LIRMM, CNRS/University of Montpellier, FR.
- 2014 – current **Chair of “Embedded High-performance” track** of the SoC community network
- 2008 – 2014 **Head of the “Reconfigurable computing” track** of the SoC community network⁶
- 2009 – current **Member of the steering committee** of the SoC community network
- 2005 – 2007 **Co-founder of a Joint doctoral school⁷** “Embedded Systems-on-Chips for ubiquitous Computing Environments”, with the Darmstadt University of Technology

³ Co-founder with Pr. Manfred Glesner, Darmstadt University of Technology. The ReCoSoC symposium has become over the years a well-known European forum for research on Reconfigurable computing and SoC-related architecture topics. Previous editions were organised in France, United Kingdom, Germany, Spain. The ninth edition will be organised in Montpellier with around 100 participants. <http://www.recosoc.org>

⁴ CNRS is organized in 10 national institutes that label the national research units as LIRMM. INS2I is the CNRS National Institute for Information Sciences: <https://ins2i.cnrs.fr/>

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⁶ <http://www.gdr-soc.cnrs.fr>

⁷ Implemented through the German-French University (<http://www.dfh-ufa.org>). It united the local Doctoral School together with the *Graduiertenkolleg* «Ubiquitous Computing» from the Darmstadt University of Technology.

- **COMMISSIONS OF TRUST (recent)**

- 2021 – current **Reviewer / Committee member for national programmes on embedded AI & German-French call on AI.**
- 2010 – current **Reviewer for Habilitations** (average of 1/year) in France since 2010.
- 2005 – current **Reviewer of 40+ Ph.D. theses** (average of 7/year) in France since 2010 and abroad (Switzerland, Spain, Finland, Germany) since 2005.
- 2010 – 2020 **Founder and Leader of the ADaptive Computing group⁸** (ADAC), LIRMM, France.
- 2005 – current **Member of promotion committees** for Associate Professor (4 Universities)
- 2010 – 2013 **Review panel member / project reviewer, EPSRC** (Engineering and Physical Sciences Research Council), United Kingdom and **SATW** (Swiss Academy of Sciences and Techniques), Switzerland
- 2008 – 2014 **Review panel member, « Electron d’Or » prize** organised by the editorial board of the “ElectroniqueS” French magazine, Paris, France
- 2006 – current **Reviewer of ~2 project proposals / year** for ANR (French national research agency), France
- 2006 – current **Guest editor of several special issues** in journals

- **GRANTS (recent excerpt)**

H2020 – Mont-Blanc 3 [2015-2019] *Leader of the CNRS partner* in France. This project is the follow-up of Mont-Blanc 3 in which we put a tight focus on hardware architecture exploration. CNRS EC grant: 300k€.

FP7 - IP Mont-Blanc / IP Mont-Blanc 2 [2011-2016]. *Leader of the CNRS partner* in France with 4 research labs involved and 3 Universities across the country. Those 2 projects comprise 15 partners and scientific objectives lie in the design of energy-efficient ARM processor-based HPC clusters. Cumulated EC grant for CNRS partner: 1.35 M€

FP7 – STREP Dreamcloud [2013-2016]. *Leader of the CNRS partner.* The project comprises 7 partners, scientific objectives lie in the exploration and design of dynamic resource allocation technology for various domains ranging from real-time embedded applications to cloud services. EC grant for CNRS partner : 340k€

CAPES – Integrated Multiprocessing Platforms [2012-2014]. *Principal Investigator for France.* bilateral collaborative project between France and Brazil with 4 involved universities.

MENSR/DFG⁹ – MP@3D [2014-2016]. *Principal Investigator for France.* Bilateral project with the University of Bremen on the exploration of multiprocessor systems on 3D-integrated technologies.

ANR¹⁰ – ADAM (ADaptive Architecture for MPSoCs) [2008-2011]. *Leader of the LIRMM partner* (University of Montpellier 2). Project composed of 3 partners: University of Pierre et Marie Curie, CEA-LETI and LIRMM. Grant: 217k€.

FP6 – STREP PERPLEXUS [2006-2009]. *Leader of the CNRS partner.* This FET project comprised 9 partners, CNRS has in this project proposed an agent-oriented bio-mimetic framework which was developed and experimented on EPFL robots. Grant: 240k€.

⁸ Research group hosted at LIRMM Joint Research Unit (CNRS/University of Montpellier) – 7 permanent staff (2 full professors, 2 associate professors, 3 CNRS research scientists) and ~10 Ph.D. candidates: https://www.lirmm.fr/lirmm_eng/research/teams/adac

⁹ Funded by the French Ministry of Education and Research (MENSR) and the German Academic Exchange Service (DAAD).

¹⁰ ANR : French research agency.