

EMMANUEL WITRANT

Associate Professor at University Grenoble Alpes / GIPSA-lab
B.Sc. in Aerospace Engineering - Ph.D. in Automatic Control - HDR in Physics

✉ Born in 1977, September 13th, in France (38)
✉ Control Systems Department (DAUTO), GIPSA-lab
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Current position

Since 2007

UGA / GIPSA-LAB, GRENOBLE, FRANCE. ASSOCIATE PROFESSOR IN THE PHYSICS DEPARTMENT.
Research activity on *Modeling and control of transport in inhomogeneous media at Grenoble Images Parole Signal Automatique*, Teaching at UFR PhITEM (Physique, Ingénierie, Terre, Environnement, Mécanique).
▷ *Theoretical research* on heterogeneous transport modeling and control: stabilization, identification and optimization for systems described by partial differential equations or time-delays.
▷ *Main collaborations (joint publi. and/or projects)*:

- Information transport and networked cont. syst.: KTH (Sweden), Un. of L'Aquila and Sienna (Italy).
- Thermonuclear fusion and large-scale instruments: CEA (IRFM-ITER)/Supélec/LISA/LJK (France), CERN/EPFL (Switzerland), KTH (Sweden), IIT-UA (USA).
- Glaciology and environmental studies: LGGE/LSCE (France), IMAU (Netherlands), CIC (Denmark), INSTAAR/NOAA/UC (USA), UEA (UK), Univ. Bern (Switzerland), ULB (Belgium).
- Industrial applications: mining/building ventilation, car engines: ABB / Boliden (Sweden), Renault/PRISME (France).

▷ *Head of the international Master 2 in Systems, Control and Information Technologies (P & R)*.
▷ *Head of the Automatic Control teachings and the PhyAuto lab at UFR PhITEM*.
▷ *Co-director and head of education for the Labex Persyval-lab*.
▷ *2013-2014: guest professor at Katholieke Univ. Leuven and Univ. Libre de Bruxelles, Belgium*.
▷ *National grant for excellency in research since 2010*.

Post-docs

2006-2007

ROYAL INST. OF TECH. (KTH), STOCKHOLM, SWEDEN. POST-DOC IN CONTROL SYSTEMS (11 MONTHS).
Identification and control of networked embedded intelligent systems and distributed systems.

2006

CEA-CADARACHE, FRANCE. POST-DOC IN CONTROLLED THERMONUCLEAR FUSION (10 MONTHS).
Modeling, identification and control of the current profiles in Tokamak plasmas.

Education

2015

UGA, FRANCE. HDR (HABILITATION À DIRIGER LA RECHERCHE) IN PHYSICS.
Modeling and Control of Inhomogeneous Transport Phenomena.

2005

INSTITUT NATIONAL POLYTECHNIQUE DE GRENOBLE, FRANCE. PHD IN AUTOMATIC CONTROL.
Stabilization of Network Controlled Systems. INPG best Ph.D. thesis award.

2002

INPG/LAG, GRENOBLE, FRANCE. MASTER OF SCIENCE IN AUTOMATIC CONTROL.

Thesis on *Human Friendly Control: Application to the Drive-by-Wire System* (grad. with honors)

2001

GEORGIA INSTITUTE OF TECHNOLOGY, ATLANTA, USA. BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING.
Specialization in control theories. Dean's List.

Professional Experience

Since 2002

AUTOMATIC CONTROL AND INHOMOGENEOUS TRANSPORT.

▷ *Publications*: 39 journal papers (including 2 in Nature and 1 Nature Geoscience), 5 patents, 2 books, 3 coordinations of conf. proceedings, 8 book chapters, 52 papers in international conference proceedings.

▷ *Projects*: 15 international, 6 national, 6 industrial, 7 regional. Project coordinator for 12.

▷ *Advised students*: 9 Ph.D. (+5 external), 3 post-docs / ATER, 19 Master 2, 5 Master 1.

▷ *Publication chair for the 2013 IFAC Joint Conference in Grenoble (SSSC, TdS, FDA)*.

▷ *Invited sessions organizer for IEEE and AIAA*.

▷ *Reviewer for key journals / international conferences in Automatic Control and Thermonuclear Fusion*.

1999-2003

UNITED TECHNOLOGIES (1 YEAR, ATLANTA, USA), CERN (2 MONTHS, GENEVA, SWITZERLAND) AND UNIV. OF TWENTE (3 MONTHS, ENSCHEDE, NETHERLANDS). SPONSORED INTERNSHIPS.