PERSONAL INTRODUCTION

QUICK OVERVIEW

MASTER 1 ICE, 2017-2018

BENOIT COMBEMALE
PROFESSOR, UNIV. TOULOUSE, FRANCE

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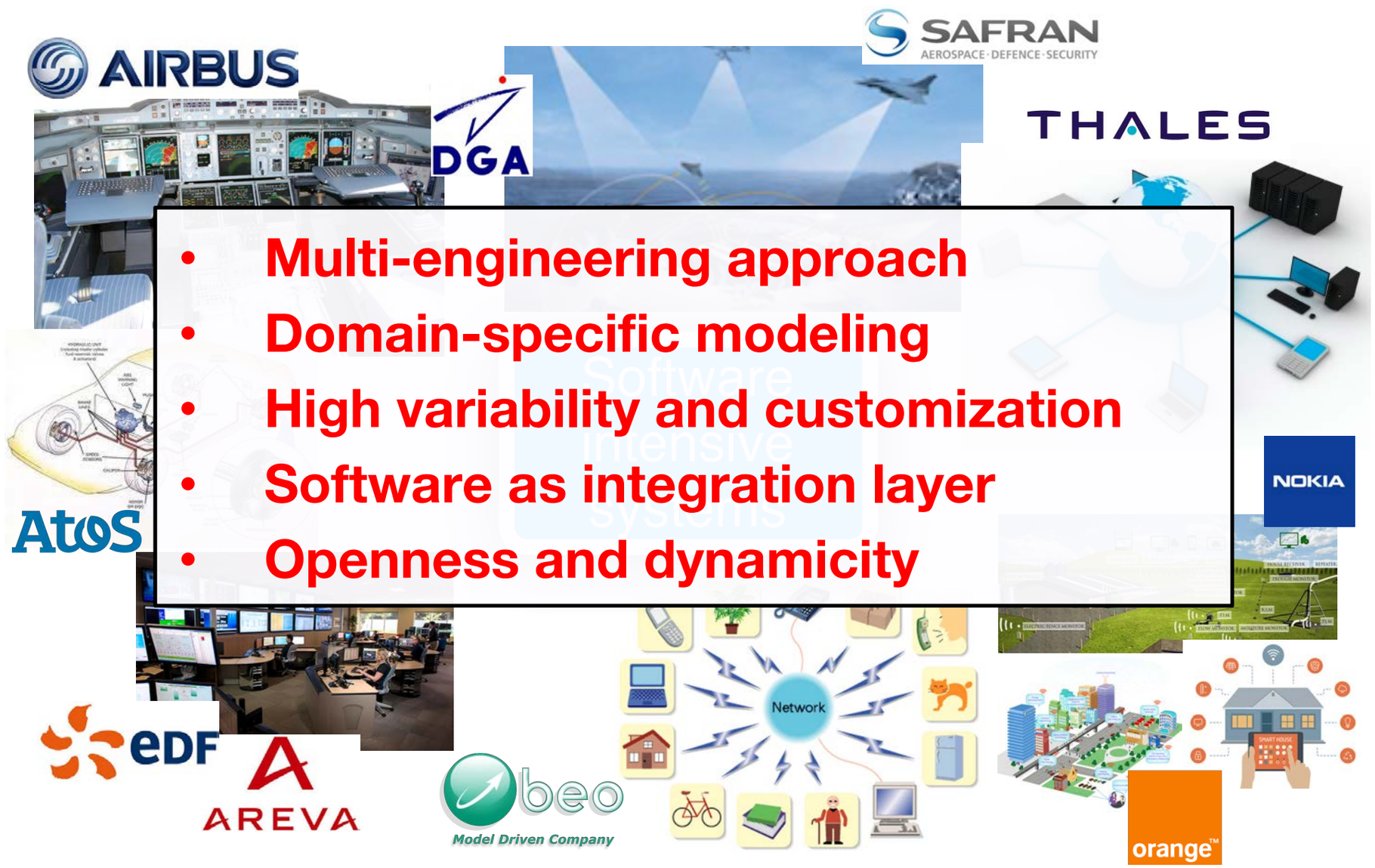
@BCOMBEMALE

Background

- **Positions**
  - Since 2017 — Full Professor in Software Engineering, University of Toulouse - Jean Jaurès
    Teacher in the Department of Mathematics and Computer Science
    Researcher in the MACAO group, joint to CNRS/IRIT
  - 2009 - 2017 — Associate Professor in Software Engineering, University of Rennes 1
    Teacher in the engineering school ESIR (+ Master in SE)
    Researcher in the DiverSE group, joint to CNRS/IRISA and Inria
    - 2017 — Visiting Professor at McGill University, CA
    - 2013-2016 — Research Scientist at Inria *(on leave from UR1)*
    - 2010-2015 — Regular visiting professor at CSU, USA
  - 2008-2009 — Postdoc fellow, Inria
  - 2005-2008 — Research associate (PhD student) at ENSEEIHT (grant, French government)

- **Education**
  - 2015 — HDR in Computer Science, University of Rennes 1
  - 2008 — PhD in Computer Science, University of Toulouse
  - 2005 — MSc in Computer Science, ENSEEIHT, Toulouse
  - 2004 — IUP NTIE, UT2J, Toulouse (software engineer at INEO SCLE)
  - 2002 — IUT in Computer Science, UT2J (Blagnac), Toulouse

Complex Software-Intensive Systems



- **Multi-engineering approach**
- **Domain-specific modeling**
- **High variability and customization**
- **Software as integration layer**
- **Openness and dynamicity**

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Model Driven Engineering, Software Language Engineering, Domain Specific (Modeling) Languages, Software Product Line

Cyber-Physical Systems, Internet of Things

B[illegible]oit Combemale

Agility and Safety for Wild Software

Validation and Verification (formal methods, simulation, model-based testing)

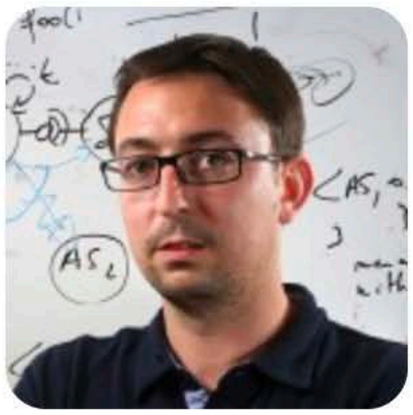
UNIVERSITÉ TOULOUSE Jean Jaurès

Université Fédérale Toulouse Midi-Pyrénées

IRIT

CNRS · INPT · UPS · UT1 · UT2J

Home



Full Professor at University of Toulouse (UT2J)
PhD and Habilitation in Computer Science

Department of Mathematics and Computer Science
Research team MACAO (IRIT lab)

Member of GEMOC

VANCOUVER 2017 SLE

Latest tweets

RT @andwor: Next: A Systematic Mapping Study on Modeling for Industry 4.0 with @bcombemale and @barais in empirical studies **#models17**
1 day ago

RT @richpaige: Best **#sosym** editorial board meeting ever **#models17**
https://t.co/vTWZeytMkx
2 days ago

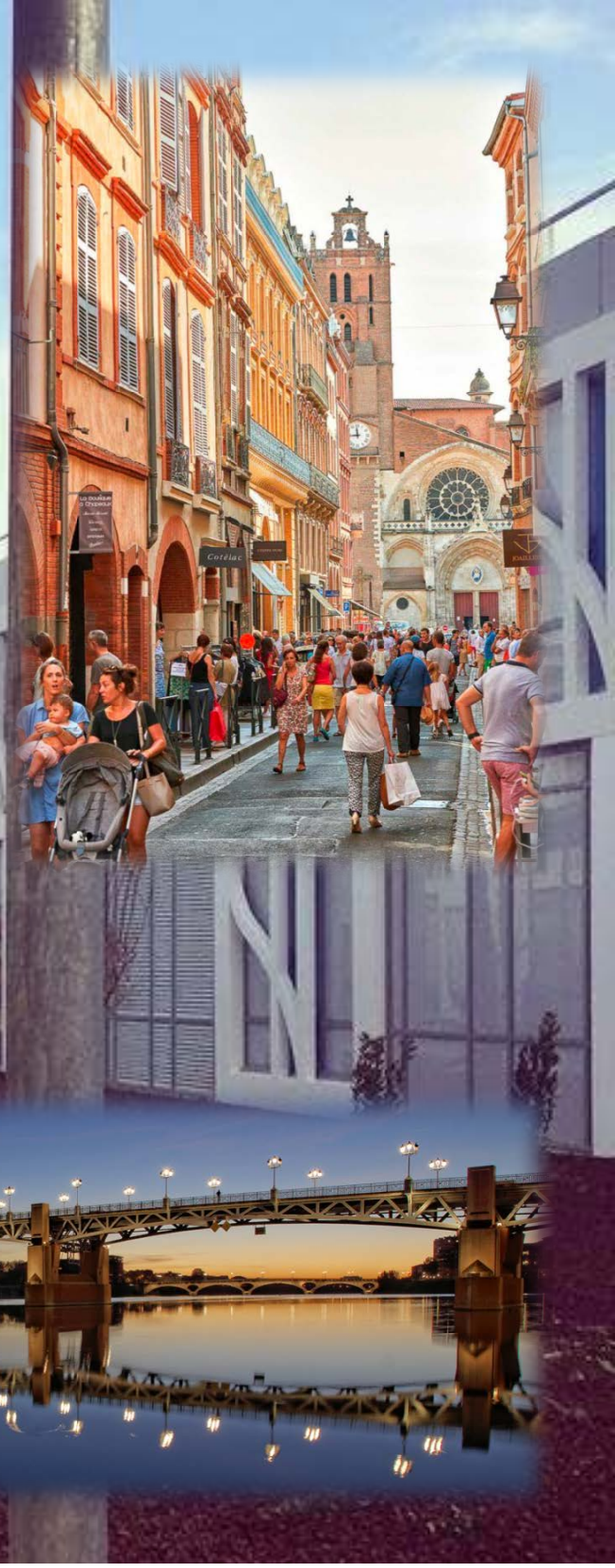
SLE'17 program is now online: https://t.co/KLnTdZkPTX cc @sleconf
3 days ago

RT @richpaige: @bcombemale "Programming is a special case of executable modelling." **#exe17 #models17**
5 days ago

RT @richpaige: Benoit: "Would standardisation hinder innovation?" **#exe17 #models17**

Hack your own languages?

Join us in the MDE/SLE group of the CNRS IRIT lab, in a freshly rebuilt campus of the warm and vibrant city of Toulouse!



Open Positions for MS, PhD and Postdoc

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IRIT CNRS - INPT - UPS - UT1 - UT2J

WE WANT YOU!

Round table

background? business project? expectations for the future? ...

Vous maîtrisez la programmation…

… orientée objet !

Software Engineering: Definition

The pro"duction of **operational software** satisfying **defined standards of quality…**

… includes programming, but is **more than programming!**

The five components of Software Engineering [Meyer]:

- **Describe**: requirements, design, specification, doc…
- **Implement**: programming
- **Assess**: testing and other V&V techniques
- **Manage**: plans, schedules, communication, reviews
- **Operate**: deployment, installation…

Our Courses: A Long Path Together ☺

- **Master 1 ICE**
  - Génie Logiciel (GL):
    - GLa: Validation & Vérification P1
  - Environnement Collaboratif (EC):
    - ECa: Méthodes de développement P1
    - ECb: Ingénierie des systèmes P1/P2
    - ECc: DevOps P1
  - Ingénierie Dirigée par les Modèles (IDM) P2/P3
  - Projet de développement collaboratif (PDC) P3/P4/P5

- **Master 2 ICE**
  - Projet collaboratif tuteuré (PCT) P2/P3/P4

Course Organization

- Lectures, tutorials and labs have to be interactive
- Lectures, tutorials and labs are all mandatory
- Laptops (and others mobile devices) are useless during lectures => prohibited
- Disclaimers:
  - my slides are a mix of French and English
  - most of the time, just in time published (and might be outdated before)

How to reach me

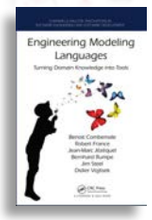
- Preferably at the end of a lectures/tuto/labs
- Otherwise by sending an email with:
  - Your **academic email** (or a comprehensible one)
  - An **explicit object** starting with "[ICE1-XX] …", where XX is the course related to the email
  - A **full signature** including your name, group/partners, etc.
  - A **comprehensible description** of your issues
  - The **related files** (diagrams, source code…)
    - Rq: to export an Eclipse project, use the dedicated facility (Project's contextual menu (by right clicking) > export > Archive File…)

compliance_with_these_rules => a_guaranteed_response

Course Materials

- Slides of the courses
- Complementary materials on the course websites
  - http://people.irisa.fr/Benoit.Combemale/teach/
- Textbooks and books (see slides)

Ingénierie Dirigée par les Modèles : des concepts à la pratique, by Jean-Marc Jézéquel, Benoit Combemale, Didier Vojtisek, Références sciences, ellipses (Eds.). 2012.



Engineering Modeling Languages: Turning Domain Knowledge into Tools, by Benoit Combemale, Robert B. France, Jean-Marc Jézéquel, Bernhard Rumpe, Jim R.H. Steel, and Didier Vojtisek. Chapman and Hall/CRC, pp.398, 2016. Companion website: http://mdebook.irisa.fr

- Get connected!
  - blog, forum, twitter, rss, tutorials, mailing lists, etc.
  - https://www.cybrhome.com/topic/engineering-blogs-of-companies