

*Jordi Cabot*

*Curriculum Vitae*  
*Barcelona, August 2017*

---

## Summary

<b>PERSONAL DETAILS</b> .....	1
<b>POSITIONS HOLD</b> .....	2
<b>EDUCATION</b> .....	2
<b>RESEARCH RESULTS</b> .....	3
<b>ANIMATION OF THE SCIENTIFIC COMMUNITY</b> .....	3
<b>DISSEMINATION AND TECHNOLOGY TRANSFER</b> .....	10
<b>RESEACH PROJECTS / FUNDING</b> .....	10
<b>TEACHING ACTIVITIES</b> .....	14
<b>INDUSTRIAL EXPERIENCE</b> .....	15
<b>APPENDIX A. FULL LIST OF RESEARCH PUBLICATIONS</b> .....	16
<b>APPENDIX B. FULL LIST OF TEACHING PUBLICATIONS</b> .....	27
<b>APPENDIX C. PARTICIPATION IN OTHER RESARCH PROJECTS</b> .....	29

## PERSONAL DETAILS

---

Jordi Cabot Sagrera (where *Jordi* is the first name and *Cabot* and *Sagrera* are two last names, as customary in Spain) was born in Barcelona on September 11<sup>th</sup> 1978.

Now an ICREA Research Professor at Interdisciplinary Internet Institute (IN3), a research center of the Open University of Catalonia (UOC) in Barcelona where he leads the SOM research team (for “**S**ystems, **S**oftware and **M**odels”).

Jordi can be reached at:

*Internet Interdisciplinary Institute (IN3) - UOC*  
*Av. Carl Friedrich Gauss, 5. Edifici B3*  
*Parc Mediterrani de la Tecnologia*  
*08860 Castelldefels (Barcelona)*  
*Spain*

Or online at:

[jordi.cabot@icrea.cat](mailto:jordi.cabot@icrea.cat)  
<http://jordicabot.com>

## POSITIONS HOLD

---

**05/2015 – present** *ICREA Research Professor at Internet Interdisciplinary Institute (IN3-UOC)*

**01/2010 – 04/2015** *INRIA Research Chair and Associate Professor at the École des Mines de Nantes.*

Leader of the [AtlanMod](#) joint research team (École des Mines de Nantes, Inria and CNRS ) since July 2010.

**5/2008 – 12/2009** *Post-doctoral fellow at the University of Toronto.*

Member of the Software Engineering Group in the department of computer science

**4/2004 – 12/2009** *Senior lecturer at the Open University of Catalonia.*

Coordinator of the software engineering area in the Computer Science Degree.

Coordinator of the software engineering postgraduate programme.

**9/2002 – 6/2004** *Associate lecturer at the Caixa d'Estalvis de Terrassa Business College.*

**9/2000-2/2002** *Associate lecturer at the Mataró School of Engineering.*

## EDUCATION

---

**09/2012** French Habilitation (HdR - Habilitation à diriger des recherches, "accreditation to supervise research"). Dissertation: "MDE 2.0 : Pragmatical formal model verification and other challenges"

**5/2008 – 12/2009** Post-doctoral fellow at the University of Toronto, Software Engineering Group.

**11/2006** Ph.D in Computer Science (European Mention) from the Technical University of Catalonia (Software program, LSI Department). Dissertation: "Incremental Integrity Checking in UML/OCL Conceptual Schemas". Advisor: Dr. Ernest Teniente

**01/2006- 05/2006** Visiting researcher at Politecnico di Milano (Italy) where I collaborated with the group of Piero Fraternali in the Web Engineering area

**07/2002** Degree in Informatics Engineering. Technical University of Catalonia

**02/1999** Technical degree in Technical Engineering in Management Computing (Mataró School of Engineering)

## RESEARCH RESULTS

---

My research falls into the broad area of software engineering, specially promoting the rigorous use of software models and engineering principles in all software engineering tasks, from development to reverse engineering to maintenance and interoperability, including the important role of human aspects in all of them.

### RESEARCH PUBLICATIONS

The following table summarizes my list of published research results so far (teaching-related publications are listed later on).

Type of Publication	Total
Journal	34
Book	1
Book Chapter	3
Conference	83
Workshop	46
National	11
<b>TOTAL</b>	<b>178</b>

A full list of publications can be found in the Appendix A. An (incomplete) list of publications can also be accessed online thanks to DBLP:

<http://dblp.uni-trier.de/pers/hd/c/Cabot:Jordi.html>

### OTHER PERSONAL RESEARCH METRICS

Total number of citations and h-index and i10-index (according to Google Scholar)

	All
<a href="#">Citations</a>	4124
<a href="#">h-index</a>	30
<a href="#">i10-index</a>	95

Number of different co-authors of my published papers (according to DBLP): 166

## ANIMATION OF THE SCIENTIFIC COMMUNITY

---

### SUPERVISION OF PhD STUDENTS

#### CURRENT

2015 - present. Hamza Ed-douibi. Co-directed with Javier Cánovas. Thesis topic: Modeling and testing web APIs.

2014 – present. Gwendal Daniel. Co-directed with Gerson Sunyé. Thesis topic: Scalable NoSQL backends for model persistence

## PAST

2013 – 2016 Amine Benelallam. Co-directed with Massimo Tisi and Gerson Sunyé  
Thesis topic: Scalability for model-driven engineering techniques

2011 – 2014. Carlos González. Thesis topic: Efficient Formal model verification.

2011 – 2014. Salvador Martínez. Co-directed with Frédéric Cuppens. Thesis topic: Reengineering of security policies using model-based techniques.

2011 - 2013. Valerio Cosentino. Co-directed with Patrick Albert (IBM). Thesis topic: Extraction and refactoring of Business Logic from Legacy Applications.

2008 - 2013: Elena Planas. Co-directed with Cristina Gómez. Thesis topic: Verification of the executability of UML behavioural specifications.

## INVITED TALKS

I have given guest talks and seminars at several universities and institutions such as the Chalmers University, University of Bordeaux, Politecnico di Milano, University of Toronto, Technical University of Valencia, University of Murcia, Technical University of Catalonia, University of La Rochelle, Basque Country University, University of Luxembourg, CEA...

I have also been invited to give a talk in the following conferences:

- RuleML+RR 2017: International Joint Conference on Rules and Reasoning. London, 2017
- 9es Journées Nationales du GDR GPL 2017, Montpellier, 2017
- Ingeniería del software dirigida por modelos: versión apta para incrédulos. 2ndo foro de ingeniería del software. Bogotá. 2016
- Wanna see your OSS project succeed? Nurture the community. Ericsson Modeling Days, Stockholm. 2016
- (Panelist) Conceptual Modeling and Big Data – ER conference. Gifu 2016
- Who needs languages when you have patterns?. 1st International Workshop on Patterns in Model Engineering. 2015
- (Panelist) Modeling in Software Engineering (ICSE workshop) 2012
- MDD - Desarrollo de software dirigido por modelos que funciona (de verdad!). SGVirtual. 2011
- MDE=Model Driven Everything. 2nd Spanish Eclipse day. Valencia (Spain), 2009

- Learning Software Engineering in a Virtual University: the UOC case in the Ier Congreso Internacional de Tecnologías de la Información y Comunicaciones (Regional South American Conference) 2005

## **PARTICIPATION IN RESEARCH COMMITTEES**

- Expert Panel member for the Fonds National de la Recherche Luxembourg: CORE 2016 and 2017
- Panel member for the evaluation of Juan de la Cierva Spanish research grants - 2017
- Reviewer for the Fonds National de la Recherche Luxembourg: CORE 2015 and INTER 2015 and 2017 programs
- Reviewer for the Austrian Science Fund - 2016
- Reviewer for French National Research Projects (ANR) – 2013
- Reviewer for Spanish CICYT Research Projects – 2017,2016, 2012, 2011,2010, 2009 and 2008 Editions
- Reviewer for the National Dutch Projects Call – 2012 and 2009
- Reviewer for National UK Projects: 2011
- Reviewer for National Argentinian Projects: 2011
- Reviewer for Israel Science Foundation (ISF) – 2010 and 2009
- Reviewer for Spanish "Torres Quevedo" Research Projects: 2009

## **STEERING COMMITTEE**

- International Conference on Model Transformation (member since 2011)
- Vice-Chair of the SC for the International Conference on Model Driven Engineering Languages and Systems since 2016 (member since 2015)
- Advisory board International Symposium on Model-driven Approaches for Simulation Engineering (since 2016)
- Member of the Papyrus Industrial Consortium (since 2016)

## **ORGANISATION OF CONFERENCES AND WORKSHOPS**

- Organization of international conferences:
  - PC Chair (together with Roberto de Virgilio, Int. Conf on Web Engineering 2017
  - PC Track Chair (together with Marjan Mernik), Quatic 2016
  - Sponsor Chair, 19 Int. Conf. on Model Driven Engineering Languages and Systems (Models) 2016
  - PC Chair (together with Alexander Egyed) of the 18 Int. Conf. on Model Driven Engineering Languages and Systems (Models) 2015
  - PC Chair (together with Julia Rubin) of the European Conf. on Modeling Foundations and Applications (ECMFA) 2014
  - PC Chair (together with Eelco Visser ) of the Int. Conf. on Model Transformation 2011
  - Social Media Chair (together with Dimitris Kolovos) of MoDELS 2014
  - Posters and Demo Chair (together with Michael Nebeling) of ICWE 2014
  - Tutorials Chair at the MoDELS conference 2013
  - Publicity Chair of the ER'08 conference

- Workshop organization:
  - Co-organizer of the 1<sup>st</sup> Grand Challenges in MDE workshop
  - Co-organizer of CloudMDE, Int. Workshop on Model-Driven Engineering on and for the Cloud. Editions 2012, 2014 and 2015
  - Co-organizer of the International Workshop on OCL and Textual Modelling. Editions from 2008 to 2013, 2016, 2017
  - Co-organizer of the MELO - Model-Driven Engineering, Logic and Optimization: friends or foes? Workshop. Co-located with ECMFA 2011 and STAF 2016
  - National workshops and conferences: Co-organizer of the Workshop on Model Driven Development, MDA and Applications (DSDM): 2015, 2010, 2008 and 2007 editions
  - PhD Workshop Co-Chair for the ER'08 conference
  - Co-organizer of the first Doctoral Symposium in the UML conference series (UML 2004)

### **ASSOCIATE EDITOR FOR THE FOLLOWING INTERNATIONAL JOURNALS**

- Journal of Object Technology 2012 - now
- Software and Systems Modeling 2013- now
- Computer Languages, Systems & Structures, 2015-now
- IEEE Software - Initiatives Team, 2015- now
- International Journal of Information System Modeling and Design 2011-2013

### **REVIEWER FOR THE FOLLOWING INTERNATIONAL JOURNALS**

Reviewer for all major journals in the software engineering area, including:

- IEEE Transactions on Software Engineering Journal,
- ACM Transactions on Software Engineering and Methodology,
- Journal of Systems and Software,
- Information and Software Technology Journal,
- Software and Systems Modeling Journal,
- Data and Knowledge Engineering Journal,
- Science of Computer Programming.
- Transactions on Aspect-Oriented Software Development journal
- Transactions on Systems, Man, and Cybernetics Journal
- Computers & Security Journal
- Journal of Computer Science Education
- Web Engineering journal
- Transactions of the Society for Modeling and Simulation
- Journal of Software: Evolution and Process

### **PC MEMBERSHIP IN INTERNATIONAL CONFERENCES**

I'm regularly a PC member in many conferences in software engineering, model-driven engineering and web engineering topics. Only international conferences are listed.



## **International conferences**

- Fundamental Approaches to Software Engineering (FASE) 2017
- 13th International Conference on Open Source Systems 2017
- Int. Conf. on Automated Software Engineering (ASE): 2015, 2014 (PB)
- Int. Conf. on Advanced Information Systems Engineering (CAiSE): 2016,2015,2014, 2013, 2012
- Int. Conf. on Model Driven Engineering Languages and Systems (MoDELS): 2017 (PB), 2016 (PB), 2014,2013, 2012,2011,2010
- International Symposium on Open Collaboration (OpenSym): 2017,2016
- International Conference on Conceptual Modeling (ER): 2013, 2012
- European Conference on Modelling Foundations and Applications (ECMFA) :2016, 2015,2014,2013, 2012,2011,2010
- International Conference on Web Engineering (ICWE): 2009-2016
- Int. Conf. on Software Language Engineering (SLE): 2017, 2016, 2015,2012,2011,2010
- IEEE International Conference on Engineering of Complex Computer Systems : 2011,2010
- Model Transformation Conference: 2008-2017
- World Wide Web Conference : 2013, 2012, 2011,2010
- Tool Transformation Contest: 2011,2010
- Int. Conf. on Web Information Systems and Technologies (WEBIST): 2010
- RuleML Conference: 2011, 2010, 2009 editions
- The 12th IEEE International EDOC Conference (EDOC 2008)

## **International workshops (partial list)**

- MDE4IoT 2017
- Workshop on Executable Modeling, 2015
- International Model-Driven Requirements Engineering Workshop, 2015-2016
- International Workshop on OCL and Textual Modeling Tool, 2015, 2014
- STAF Doctoral Symposium, 2015
- Tutorials selection committee Models, 2016,2015
- International Workshop on Verification of Model Transformations, 2015
- MODELS ACM Student Research Competition, 2013
- International Workshop on Communicating Business Process and Software Models, 2013
- ICSE 2013 Formal Demonstrations selection committee, 2013
- RuleML Challenge: 2011,2010, 2009
- Model Driven Web Engineering Workshop (MDWE): 2011
- Workshop on Algebraic Methods in Model-Based Software Engineering (AMMSE): 2011
- Model-Driven Requirements Engineering: 2011
- International Workshop on the Web and Requirements Engineering: 2011
- Industry Track of Software Language Engineering 2011
- International Workshop on Models and Evolution (ME'10) co-located with MoDELS'10 conference
- Doctoral Symposium for the Int. Conf. on Software Language Engineering (SLE) : 2010

- ECMFA Workshop: From code centric to model centric: Evaluating the Effectiveness of MDD: 2010
- 7th International Workshop on Model-based Methodologies for Pervasive and Embedded Software (MOMPES): 2010
- International Workshop on Modeling Social Media 2010
- Software Engineering 2.0 & Research 2.0: 2009
- ADBIS Workshop on Model Driven Architecture: Foundations, Practices, and Implications: 2010, 2009 editions
- Educators Symposium at the MoDELS conference: 2011, 2010, 2009 editions
- Posters' track at the 8th Int. Conf. on web Engineering (ICWE'08)
- Symposium Committee of the Phd Symposium at MODELS'07
- OCLApps 2006:OCL for (Meta-)Models in Multiple Application Domains Workshop (Workshop at MODELS'06)

## **PARICIPATION IN PhD JURIES**

- Carolina Dania, Universidad Complutense de Madrid, 2017
- Aurelien Chichignoud, Université Paris-Sud, 2017
- Thomas Hartmann, University of Luxembourg (Luxembourg), 2016
- Djamel Khelladi, Université Pierre et Marie Curie (France), 2016
- David Granada, Universidad Rey Juan Carlos (Spain), 2016
- Silverio Martínez-Fernández, Universitat Politècnica de Catalunya (Spain), 2016
- Loli Burgueño, Universidad de Málaga (Spain), 2016
- Ran Wei, University of York (UK), 2016
- Andrea Mauri, Politecnico di Milano (Italy), 2016
- Jacob Geisel, Université Toulouse III (France), 2015
- Jean-Marie Gauthier, Université Franch-Comté (France), 2015
- María Francisca Pérez Pérez, Technical University of Valencia (Spain), 2015
- Tiexin Wang, École des Mines d'Albi (France), 2015
- Elie Richa, Telecom ParisTech (France), 2015
- Miguel Ángel García de Dios, Universidad Complutense de Madrid (Spain), 2015
- David Aguilera, Technical University of Catalonia (Spain), 2014
- Aymeric Hervieu, Université de Rennes I (France), 2013
- Quyet-Thang PHAM , Telecom Bretagne (France), 2012
- Islam Abdelhalim. PhD confirmation report. University of Surrey (UK). 2011
- Pau Giner. Technical University of Valencia (Spain), 2010
- Marta Ruiz. Technical University of Valencia (Spain), 2010
- José Eduardo Rivera. University of Málaga (Spain), 2010
- Gemma Grau. Universitat Politècnica de Catalunya (Spain), 2008
- Marina Egea. University Complutense of Madrid (Spain), 2008

## **AWARDS**

- Best paper award at Models 2016 (ACM/IEEE 19th International Conference on Model Driven Engineering Languages and Systems) for our paper PrefetchML: a Framework for Prefetching and Caching Models by Gwendal Daniel, Gerson Sunyé and Jordi Cabot

- Awards for Outstanding Committee Service received at the ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems

## **DISSEMINATION AND TECHNOLOGY TRANSFER**

---

I believe dissemination and technology transfer of our research is a key responsibility of any researcher.

As part of my dissemination activities I'd like to highlight

1. Publication of an introductory book on model-driven engineering, which has become the book of reference for teaching model-driven engineering and is now used in over 90 universities and educational institutions around the world.

Model-Driven Software Engineering in Practice  
by Marco Brambilla, Jordi Cabot, Manuel Wimmer  
2<sup>nd</sup> Edition, Morgan & Claypool, 2017  
<http://mdse-book.com/>

2. The creation and administration of the Modeling Languages portal where I write about news, opinions, tools,... related to the world of software modeling and development that I think can be of interest for the general public. On average, the portal receives more than 1000 visits every day and is often cited in papers by researchers in this field.

<http://modeling-languages.com>

## **RESEACH PROJECTS / FUNDING**

---

This section lists the funding (research projects and grants) I have received either as individual researcher or as leader of the SOM team (2015-now) or AtlanMod team (2010-2014 period).

The following summary table shows in the column *Budget-global* show the total budget of the Project while *Budget-team/me* indicates the amount corresponding to the funding for the team/myself.

Type of Project	Number	Budget (global)	Budget (team/me)
European	5	11976227	1118389
National	6	8267455	1533422
Regional	6	1729156	811121
Technology transfer	7	304900	154900
<b>TOTAL</b>	<b>21</b>	<b>22277738</b>	<b>3617832</b>

In what follows we give more details of these projects. Appendix C provides a complementary list of projects in which I participated but was not involved in their creation.

## **EUROPEAN**

### **2017- 2020 *MegaMart2 ECSEL-JU***

Full Title: An scalable model-based framework for continuous development and runtime validation of complex Systems.

Requested Budget: 9600791 euros

Requested Team budget: 246 867 euros

Coordinator: Mälardalen University

Summary: The overall approach of MegaM@Rt is to scale up the use of model-based techniques by offering proper methods and related tooling interacting between both design time and runtime, as well as to validate the designed and developed approach in concrete industrial cases involving complex systems. Thanks to the model-based method, different systems will be able to communicate through the entire development chain, and moreover it will be possible for systems in operation to feed back the collected data for continued development

### **2013- 2016 *MONDO. FP7 STREP.***

Full Title: Scalable Modelling and Model Management on the Cloud.

Budget: 3732184 euros

Team budget: 452776 euros

Coordinator: The Open Group

Summary: As Model Driven Engineering is increasingly applied to larger and more complex systems, the current generation of modelling and model management technologies are being pushed to their limits in terms of capacity and efficiency. The aim of MONDO is to tackle the increasingly important challenge of scalability in MDE.

### **2013- 2015 *AutoMobile. European Research For SMEs Call.***

Full Title: Automated Mobile App Development.

Budget: 1290338 euros

Team budget: 172184 euros

Coordinator: WebRatio

Summary: The AutoMobile project aims at designing and bringing to the market innovative methodologies, software tools, and vertical applications for the cost-effective implementation of crossplatform, multi-device mobile applications

### **2012 – 2015 *ARTIST. European FP7 IP Project***

Full Title: Advanced Software-based service provisioning and migration of legacy software

Budget: 6953705 euros

Team budget: 493429 euros

Coordinator: ATOS Spain

Summary: The modernization and adaptation of legacy applications to cloud environments is a great challenge for all involved stakeholders, not only from the technical perspective, but also at the business level. The purpose of ARTIST is to propose and develop a novel model-driven approach for the migration of legacy applications in modern cloud environments covering all aspects of the process.

**2010 – 2012** (*Teaching project*) *Exchanging knowledge, techniques and experiences around Model Driven Engineering education. Lifelong learning - Leonardo da Vinci.*  
Project aimed at the development of a content management system for model driven engineering that helps any lecturer interested in teaching MDE. Funding for traveling and short-stays only.

## **NATIONAL**

**2017-2019** *Red temática en MDE (TIN2016-81836-REDT)*

Program: Redes de excelencia.

Budget: 15000 euros

Coordinator: UOC

**2017 – 2020** *ODA: Open Data for All .*

Program: Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad

Budget: 63800 euros

Summary: The ODA project pursues an API-based infrastructure to empower citizens to benefit from the growing number of open data sources available online (but under a very heterogeneous set of formats, quality, availability,...).

**2016 – 2018** Abel Gómez. Juan de la Cierva Postdoc Senior Grant.

Program: Juan de la Cierva Incorporación 2015

Funding: 58000

**2013 – 2016** *MoNoGe. FUI French Project*

Full Title: Atelier de Modélisation de Nouvelle Génération.

Budget: 3737620 euros

Team budget: 510501 euros

Coordinator: SoftTeam

Summary: The MoNoGe project has for objective to bring innovative solutions allowing to ensure the agility of the models and modeling tools. The term agility is here referring to the properties of interoperability, extensibility and evolution of models.

**2012 – 2014** *ITM-Factory. FUI French Project*

Full Title: Information Technology Modernisation Factory.

Budget: 3490000 euros

Team budget: 647000 euros

Coordinator: MIA-Software

Summary: Application maintenance represents about 80 per cent of the computer market (at the French and global level). The main goal of the ITM Factory is to propose a software modernization framework, including: (i) an integrated workbench for software modernization engineers and (ii) a set of ready to use modernization cartridges.

**2012 – 2014** *TEAP. FUI French Project*

Full Title: TOGAF Enterprise Architecture Platform

Budget: 918035 euros

Team budget: 254121 euros

Coordinator: Obeo

Summary: The project aims to build an Enterprise Architecture platform based on the TOGAF9 standard. It will provide tool support for the reverse engineering of the enterprise's legacy systems and its modernization.

## **REGIONAL**

**2015-2018 SOM New Team Proposal.** *UOC funding to kickstart the new SOM team at IN3.* Funding covers 3 years of a postdoc and 3 years of a phd and travel money. Total funding: 201000

**2015-2017 SOM Team – Internal funding.** Funding provided by the UOC as one of the IN3 official research teams for traveling, equipment,... Total funding: 120000

**2011-2014 AtlanMod New Team Proposal.** *Pays de la Loire. Call : Soutenir et accompagner la constitution de nouvelles équipes sur des thématiques émergentes.* This grant was funded by the Pays de la Loire Regional Council “new research teams” program. This funding covers a PhD Student and two-years of a postdoc to help me settle down and start new research lines after my arrival at Nantes. Total funding: 196.000 euros

**2012 – 2014 StreamMaster.** *FUI French Project*

Budget: 918035 euros

Team budget: 254121 euros

Coordinator: Data Syscom

Summary: The purpose of the StreamMaster project is creating a universal software solution for the smart management of document streams, providing an added value over all the chain.

**2008-2009.** *Catalan Government grant (“Beatriu de Pinós”).*

Two-year grant to cover the expenses of my post-doctoral stay at the University of Toronto.

**2006.** *Catalan Government travel grant*

Travel grant to cover the expenses of my pre-doctoral research stay at the Politecnico di Milano.

## **TECHNOLOGY TRANSFER**

**2017-2018 Security in modeling**

CEA is funding 18 months of a postdoc (Salvador Martínez) to work in a collaboration with the SOM team on the topic of secure modeling processes.

**2016-2017 Application of the use of game design elements in non-game contexts to engage more external developers and end-users on Papyrus**

3 months of postdoc funding to apply gamification techniques to Papyrus

**2016** *Sysml for ECAD*

Studying the feasibility of extending the SysML language with ECAD concepts.

**2011-2013** *Technology transfer action with IBM*

Funding of Valerio Cosentino's PhD to investigate the extraction of business rules from COBOL legacy code. Valerio was directly hired and paid by IBM during the PhD.

**2011 – 2012** *INRIA Technology transfer action with MIA Software*

One year funding of a research engineer to improve the scalability of model-driven engineering techniques.

**2011 – 2012** *Technology transfer action with WebRatio*

Consulting for WebRatio to help them prepare the definition of their proposal for Interaction Flow Modeling Language (now a modeling standard).

**2010 – 2011** *Technology transfer action with BNP Paribas*

One year funding of a research engineer to explore the benefits of model-driven engineering to facilitate the interoperability of information system and development teams in large organizations.

## TEACHING ACTIVITIES

---

I led the first edition of the *MDE Diploma* ([http://www.emn.fr/z-info/atlanmod/index.php/The\\_MDE\\_Diploma](http://www.emn.fr/z-info/atlanmod/index.php/The_MDE_Diploma)), an International post-graduate specialization Diploma in Model Driven Engineering (MDE) offered at the École des Mines de Nantes. The goal of the MDE Diploma is to train engineers to manage complex projects in various IT fields with the latest cutting-edge modeling technologies. It comprises one semester of academic coursework plus a six-month internship with a company or a lab to become an internal expert able to solve industrial issues with MDE solutions. To best of my knowledge, the MDE diploma was the first full postgraduate program on MDE in the world.

Before leading the MDE diploma I had been in charge of several courses in CS degrees both in traditional universities and in virtual ones (where there are no face-to-face classes, the students connect to a virtual campus and all communication takes place online). The courses I have taught cover most of the spectrum in the software part of CS degrees and included programming, database and software engineering courses.

I have always been interested in exploring on how to improve our teaching techniques, what are the best contents and syllabus for the courses and how these courses could be adapted to different teaching scenarios. As a result of this interest I have collaborated on several books (as editor or author) and teaching publications. See Appendix B for a full list of teaching-related publications



## INDUSTRIAL EXPERIENCE

---

Beyond the collaborations with industrial partners listed in the research projects section, I've also been involved with several other companies during my career.

**2013 – 2015.** Company: *Nelio Software S.L.*

Role: Co-Founder. Company offering conversion optimization services (based on statistical techniques like A/B testing) to improve the web presence of online businesses. Specialized on WordPress websites.

**2009 – 2013.** Company: *Software Engineering Services s.c.p.*

Role: Founder. Company offering model-based content and services to the software engineering community

**2001.** Company: *Strategy Consultants*

Role: Occasional consultant in software projects developed with the RAD Delphi technology.

**2000.** Company: *Asistencia en gestión tributaria.*

Role: Analyst/programmer for the web-based tax management system commercialized by the company.

**1998 - 1999** Company: *Mataró School of Engineering.*

Role: Programmer, part of the team that developed the internal information system for the university.

## APPENDIX A. FULL LIST OF RESEARCH PUBLICATIONS<sup>1</sup>

---

### JOURNAL PUBLICATIONS

1. Valerio Cosentino, Javier Luis Cánovas Izquierdo, Jordi Cabot: A Systematic Mapping Study of Software Development With GitHub. *IEEE Access* 5: 7173-7192 (2017)
2. Salvador Martínez Perez, Valerio Cosentino, Jordi Cabot: Model-based analysis of Java EE web security misconfigurations. *Computer Languages, Systems & Structures* 49: 36-61 (2017)
3. Jeffrey C. Carver, Jordi Cabot, Rafael Capilla, Henry Muccini: GitHub, Technical Debt, Code Formatting, and More. *IEEE Software* 34(2): 105-107 (2017)
4. Javier Luis Cánovas Izquierdo, Jordi Cabot: Collaboro: a collaborative (meta) modeling tool. *PeerJ Computer Science* 2: e84 (2016)
5. Elena Planas, Jordi Cabot, Cristina Gómez: Lightweight and static verification of UML executable models. *Computer Languages, Systems & Structures* 46: 66-90 (2016)
6. Javier Luis Cánovas Izquierdo, Valerio Cosentino, Jordi Cabot: Analysis of co-authorship graphs of CORE-ranked software conferences. *Scientometrics*, 109(3): 1665-1693 (2016)
7. Robert Clarisó, Jordi Cabot, Esther Guerra, Juan de Lara: Backwards reasoning for model transformations: Method and applications. *Journal of Systems and Software*, 116: 113-132 (2016)
8. Javier Luis Cánovas Izquierdo, Jordi Cabot: JSONDiscoverer: Visualizing the schema lurking behind JSON documents. *Knowledge-based systems*, 103: 52-55 (2016)
9. Soichiro Hidaka, Massimo Tisi, Jordi Cabot, Zhenjiang Hu: Feature-based classification of bidirectional transformation approaches. *Software and System Modeling* 15(3): 907-928 (2016)
10. Jeffrey C. Carver, Jordi Cabot, Leandro L. Minku, Marco Torchiano: Regression Testing, Spoken Language, Crash-Inducing Commits, UML, and Legal Policy. *IEEE Software* 33(2): 26-28 (2016)
11. Javier Luis Cánovas Izquierdo, Valerio Cosentino, Jordi Cabot: Popularity will NOT bring more contributions to your OSS project. *Journal of Object Technology* 14(4) (2015)
12. Hugo Brunelière, Jordi Cabot, Javier Luis Cánovas Izquierdo, Leire Orue-Echevarria Arrieta, Oliver Strauß, Manuel Wimmer: Software Modernization Revisited: Challenges and Prospects. *IEEE Computer* 48(8): 76-80 (2015)
13. Fabian Büttner, Jordi Cabot: Lightweight string reasoning in model finding. *Software and System Modeling* 14(1): 413-427 (2015)
14. Robert Tairas, Jordi Cabot: Corpus-based analysis of domain-specific languages. *Software and System Modeling* 14(2): 889-904 (2015)
15. Jordi Cabot, Robert Clarisó, Daniel Riera: On the verification of UML/OCL Class Diagrams using Constraint Programming. *Journal of Systems and Software* 93: 1-23 (2014)

---

<sup>1</sup> In papers with authors listed in alphabetical order, equal contribution of all authors should be assumed.

16. Hugo Brunelière, Jordi Cabot, Grégoire Dupé, Frédéric Madiot: MoDisco: a Model Driven Reverse Engineering Framework. *Information & Software Technology* 56(8): 1012-1032 (2014)
17. Carlos Alberto González Pérez, Jordi Cabot: Formal Verification of Static Software Models in MDE: A Systematic Review. *Information & Software Technology* 56(8): 821-838 (2014)
18. Joaquín García-Alfaro, Frédéric Cuppens, Nora Cuppens-Boulahia, Salvador Martínez Perez, Jordi Cabot: Management of stateful firewall misconfiguration. *Computers & Security* 39: 64-85 (2013)
19. David Ameller, Claudia P. Ayala, Jordi Cabot, Xavier Franch: Non-functional Requirements in Architectural Decision Making. *IEEE Software* 30(2): 61-67 (2013)
20. Philip Langer, Konrad Wieland, Manuel Wimmer, Jordi Cabot: EMF Profiles: A Lightweight Extension Approach for EMF Models. *Journal of Object Technology* 11(1): 1-29 (2012)
21. Javier Luis Cánovas Izquierdo, Frédéric Jouault, Jordi Cabot, Jesús García Molina: API2MoL: Automating the building of bridges between APIs and Model-Driven Engineering. *Information & Software Technology* 54(3): 257-273 (2012)
22. Manuel Wimmer, Salvador Martínez Perez, Frédéric Jouault, Jordi Cabot: A Catalogue of Refactorings for Model-to-Model Transformations. *Journal of Object Technology* 11(2): 2: 1-40 (2012)
23. Frank Buschmann, David Ameller, Claudia P. Ayala, Jordi Cabot, Xavier Franch: Architecture Quality Revisited. *IEEE Software* 29(4): 22-24 (2012)
24. Juan Manuel Dodero, Iván Ruiz-rube, Manuel Palomo-Duarte, Jordi Cabot. Model-Driven Learning Design. *Journal of Research and Practice in Information Technology*, 44(3) (2012)
25. Manoli Albert, Jordi Cabot, Cristina Gómez, Vicente Pelechano. Generating operation specifications from UML class diagrams: A model transformation approach. *Data & Knowledge Engineering*, 70(4), pp 365-389 (2011)
26. Jordi Cabot, Robert Clarisó, Esther Guerra, Juan de Lara: A UML/OCL Framework for the Analysis of Graph Transformation Rules. *Software and Systems Modeling*. 9(3): 335-357 (2010)
27. Jordi Cabot, Raquel Pau, Ruth Raventós: From UML/OCL to SBVR Specifications: a Challenging Transformation. *Information Systems Elsevier Journal* 35(4): 417-440 (2010)
28. Jordi Cabot, Cristina Gómez: Evaluating the Consistency between Navigation and Data Models for Web Applications. *International Journal of Information System Modeling and Design*. 1(3): 68-85 (2010)
29. Jordi Cabot, Robert Clarisó, Esther Guerra, Juan de Lara: Verification and Validation of Declarative Model-to-Model Transformations Through Invariants. *Journal of Systems and Software* 83(2): 283-302 (2010)
30. Manoli Albert, Jordi Cabot, Cristina Gómez, Vicente Pelechano: Automatic Generation of Basic Behavior Schemas from UML Class Diagrams. *Software and Systems Modeling* 9(1): 47-67 (2010)
31. Jordi Cabot, Greg Wilson: Tools for Teams: A Survey of Web-Based Software Project Portals. *Dr. Dobb's Journal*. Available online: <http://www.ddj.com/architect/220301068> (2009)
32. Jordi Cabot, Ernest Teniente: Incremental Integrity Checking of UML/OCL Conceptual Schemas. *Journal of Systems and Software*. 82(9): 1459-1478 (2009)

33. Jordi Cabot, Ernest Teniente: Transformation Techniques for OCL Constraints. *Science of Computer Programming*, 68(3), 179-195 (2007)
34. Jordi Cabot, Ruth Raventós: Conceptual Modelling Patterns for Roles. *Journal on Data Semantics V*, pp. 158-184 (2006)

## **BOOKS**

1. Marco Brambilla, Jordi Cabot, Manuel Wimmer: *Model-Driven Software Engineering in Practice. Synthesis Lectures on Software Engineering*, Morgan & Claypool Publishers 2012

## **BOOK CHAPTERS**

1. Salvador Martínez, Valerio Cosentino, Frédéric Cuppens, Jordi Cabot: Model-driven reverse engineering of database security policies. In : *Ingénierie et management des systèmes d'information. Mélanges en l'honneur de Jacky Akoka*. Cépaduès editions. 2015
2. Jordi Cabot, Martin Gogolla: *Object Constraint Language (OCL): A Definitive Guide*. SFM 2012: 58-90
3. Antoni Olivé, Jordi Cabot: A Research Agenda for Conceptual Schema-Centric Development. In: *Conceptual modeling in Information Systems Engineering: From Database Systems to Ubiquitous Environments and Beyond*. Springer, pp. 319-334, 2007

## **REFEREED CONFERENCE PROCEEDINGS**

1. Jordi Cabot, Roberto De Virgilio, Riccardo Torlone: *Web Engineering - 17th International Conference, ICWE 2017, Rome, Italy, June 5-8, 2017, Proceedings*. *Lecture Notes in Computer Science 10360*, Springer 2017, ISBN 978-3-319-60130-4
2. Hamza Ed-Douibi, Javier Luis Cánovas Izquierdo, Jordi Cabot: *Example-Driven Web API Specification Discovery*. ECMFA 2017: 267-284
3. Abel Gómez, Xabier Mendialdua, Gábor Bergmann, Jordi Cabot, Csaba Debreceni, Antonio Garmendia, Dimitrios S. Kolovos, Juan de Lara, Salvador Trujillo: *On the Opportunities of Scalable Modeling Technologies: An Experience Report on Wind Turbines Control Applications Development*. ECMFA 2017: 300-315
4. Zinovy Diskin, Abel Gómez, Jordi Cabot: *Traceability Mappings as a Fundamental Instrument in Model Transformations*. FASE 2017: 247-263
5. Hamza Ed-Douibi, Javier Luis Cánovas Izquierdo, Jordi Cabot: *A UML Profile for OData Web APIs*. ICWE 2017: 420-428
6. Marjan Mernik, Jordi Cabot: *Foreword to the Thematic Track: Quality Aspects in Model-Driven Engineering*. QUATIC 2016: 87
7. Gwendal Daniel, Gerson Sunyé, Jordi Cabot. *PrefetchML: A Framework for Prefetching and Caching Models*, *Models 2016*, 318-328
8. Amine Benelallam, Massimo Tisi, Jesús Sánchez Cuadrado, Juan de Lara, Jordi Cabot: *Efficient model partitioning for distributed model transformations*. SLE 2016: 226-238

9. Salvador Martínez Perez, Jokín García, Jordi Cabot:  
Runtime support for rule-based access-control evaluation through model-transformation. SLE 2016: 57-69
10. Valerio Cosentino, Javier Luis Cánovas Izquierdo, Jordi Cabot:  
Findings from GitHub: methods, datasets and limitations. MSR 2016: 137-141
11. Gwendal Daniel, Gerson Sunyé, Jordi Cabot:  
UMLtoGraphDB: Mapping Conceptual Schemas to Graph Databases. ER 2016: 430-444
12. Valerio Cosentino, Javier Luis Cánovas Izquierdo, Jordi Cabot:  
MetaScience: An Holistic Approach for Research Modeling. ER 2016: 365-380
13. Gwendal Daniel, Gerson Sunyé, Jordi Cabot: Mogwai: a Framework to Handle Complex Queries on Large Models, RCIS 2016: 1-12
14. Hamza Ed-Douibi, Javier Luis Cánovas Izquierdo, Abel Gómez, Massimo Tisi, Jordi Cabot: EMF-REST: Generation of RESTful APIs from Models, ACM SAC 2016 : 1446-1453
15. Hugo Brunelière, Jokín García, Philippe Desfray, Djamel Eddine Khelladi, Regina Hebig, Reda Bendraou, Jordi Cabot: On Lightweight Metamodel Extension to Support Modeling Tools Agility. ECMFA 2015: 62-74
16. Hugo Brunelière, Jokín García Perez, Manuel Wimmer, Jordi Cabot: EMF Views: A View Mechanism for Integrating Heterogeneous Models. ER 2015: 317-325
17. Valerio Cosentino, Javier Luis Cánovas Izquierdo, Jordi Cabot: Gitana: A SQL-Based Git Repository Inspector. ER 2015: 329-343
18. Javier Criado, Salvador Martínez Perez, Luis Iribarne, Jordi Cabot: Enabling the Reuse of Stored Model Transformations Through Annotations. ICMT 2015: 43-58
19. Javier Luis Cánovas Izquierdo, Jordi Cabot: Enabling the Definition and Enforcement of Governance Rules in Open Source Systems. ICSE (2) 2015: 505-514
20. David Ameller, Xavier Franch, Cristina Gómez, João Araújo, Richard Berntsson-Svensson, Stefan Biffl, Jordi Cabot, Vittorio Cortellessa, Maya Daneva, Daniel Méndez Fernández, Ana Moreira, Henry Muccini, Antonio Vallecillo, Manuel Wimmer, Vasco Amaral, Hugo Brunelière, Loli Burgueño, Miguel Goulão, Bernhard Schätz, Sabine Teufl: Handling non-functional requirements in Model-Driven Development: An ongoing industrial survey. RE 2015: 208-213
21. Salvador Martínez Perez, Joaquín García-Alfaro, Frédéric Cuppens, Nora Cuppens-Boulahia, Jordi Cabot: Model-Driven Integration and Analysis of Access-control Policies in Multi-layer Information Systems. SEC 2015: 218-233
22. Robert Clarisó, Carlos A. González, Jordi Cabot: Towards Domain Refinement for UML/OCL Bounded Verification. SEFM 2015: 108-114
23. Eric Umuhoza, Marco Brambilla, Davide Ripamonti, Jordi Cabot: An empirical study on simplification of business process modeling languages. SLE 2015: 13-24
24. Amine Benelallam, Abel Gómez, Massimo Tisi, Jordi Cabot: Distributed model-to-model transformation with ATL on MapReduce. SLE 2015: 37-48
25. Abel Gómez, Massimo Tisi, Gerson Sunyé, Jordi Cabot: Map-Based Transparent Persistence for Very Large Models. FASE 2015, 19-34
26. Jordi Cabot, Javier Luis Cánovas Izquierdo, Valerio Cosentino, Belen Rolandi: Exploring the use of labels to categorize issues in Open-Source Software projects. SANER 2015, 550-554
27. Timothy Lethbridge, Jordi Cabot, Alexander Egyed:  
18th ACM/IEEE International Conference on Model Driven Engineering Languages

- and Systems, MoDELS 2015, Ottawa, ON, Canada, September 30 - October 2, 2015. IEEE 2015, ISBN 978-1-4673-6908-4
28. Carlos Alberto González Pérez, Jordi Cabot: Test Data Generation for Model Transformations Combining Partition and Constraint Analysis. ICMT 2014, 25-41
  29. Jokin Garcia, Oscar Díaz, Jordi Cabot: DB Schema Evolution in Model-to-Text Transformations: An adapter-based approach. CAiSE 2014, 518-532
  30. Esteban Robles, José Matías Rivero, Matias Urbieto, Jordi Cabot: Improving the scalability of Model driven Web engineering approaches with runtime transformations. ICWE 2014, 430-439
  31. Javier Canovas, Jordi Cabot: Composing JSON-based Web APIs. ICWE 2014, 390-399
  32. Jordi Cabot, Julia Rubin: Modelling Foundations and Applications - 10th European Conference, ECMFA 2014, Held as Part of STAF 2014, York, UK, July 21-25, 2014. Proceedings .Lecture Notes in Computer Science 8569, Springer 2014, ISBN 978-3-319-09194-5
  33. Duc-Hanh Dang, Jordi Cabot: On Automating Inference of OCL Constraints from Counterexamples and Examples. KSE 2014, 219-231
  34. Javier Luis Cánovas Izquierdo, Jordi Cabot: Enabling the Collaborative Definition of DSMLs. CAiSE 2013: 272-287
  35. Javier Luis Cánovas Izquierdo, Jordi Cabot, Jesús J. López-Fernández, Jesús Sánchez Cuadrado, Esther Guerra, Juan de Lara: Engaging End-Users in the Collaborative Development of Domain-Specific Modelling Languages. CDVE 2013: 101-110
  36. Javier Luis Cánovas Izquierdo, Jordi Cabot: Discovering Implicit Schemas in JSON Data. ICWE 2013: 68-83
  37. Salvador Martínez Perez, Joaquín García-Alfaro, Frédéric Cuppens, Nora Cuppens-Boulahia, Jordi Cabot: Model-Driven Extraction and Analysis of Network Security Policies. MoDELS 2013: 52-68
  38. Martin Gogolla, Fabian Büttner, Jordi Cabot: Initiating a Benchmark for UML and OCL Analysis Tools. TAP 2013: 115-132
  39. Valerio Cosentino, Jordi Cabot, Patrick Albert, Philippe Bauquel, Jacques Perronnet: Extracting business rules from COBOL: A model-based framework. WCRE 2013: 409-416
  40. Fabian Büttner, Jordi Cabot: Lightweight String Reasoning for OCL. ECMFA 2012: 244-258
  41. Fabian Büttner, Marina Egea, Jordi Cabot, Martin Gogolla: Verification of ATL Transformations Using Transformation Models and Model Finders. ICFEM 2012: 198-213
  42. Jean-Marie Mottu, Sagar Sen, Massimo Tisi, Jordi Cabot: Static Analysis of Model Transformations for Effective Test Generation. ISSRE 2012: 291-300
  43. Fabian Büttner, Marina Egea, Jordi Cabot: On Verifying ATL Transformations Using 'off-the-shelf' SMT Solvers. MoDELS 2012: 432-448
  44. Carlos González, Jordi Cabot: ATLTTest: A White-Box Test Generation Approach for ATL Transformations. MoDELS 2012: 449-464
  45. David Ameller, Claudia P. Ayala, Jordi Cabot, Xavier Franch: How do software architects consider non-functional requirements: An exploratory study. RE 2012: 41-50
  46. Valerio Cosentino, Jordi Cabot, Patrick Albert, Philippe Bauquel, Jacques Perronnet: A Model Driven Reverse Engineering Framework for Extracting Business Rules Out of a Java Application. RuleML 2012: 17-31

47. Sagar Sen, Jean-Marie Mottu, Massimo Tisi, Jordi Cabot: Using Models of Partial Knowledge to Test Model Transformations. ICMT 2012: 24-39
48. Massimo Tisi, Salvador Martinez Perez, Frédéric Jouault, Jordi Cabot. Lazy Execution of Model-to-Model Transformations. 14<sup>th</sup> Int. Conf on Model Driven Engineering Languages and Systems (MoDELS 2011), LNCS 6981, pp. 32-46
49. Dennis Wagelaar, Massimo Tisi, Jordi Cabot, Frédéric Jouault: Towards a General Composition Semantics for Rule-Based Model Transformation. 14<sup>th</sup> Int. Conf on Model Driven Engineering Languages and Systems (MoDELS 2011), LNCS 6981, pp. 623-637
50. Elena Planas, Jordi Cabot, Cristina Gómez: Lightweight Verification of Executable Models. 30<sup>th</sup> Int. Conf. on Conceptual Modeling (ER 2011), LNCS 6998, pp. 467-475
51. Wolfgang Kling, Frédéric Jouault, Dennis Wagelaar, Marco Brambilla and Jordi Cabot. MoScript: A DSL for querying and manipulating model repositories. 4th Int. Conf. on Software Language Engineering (SLE'11)
52. Robert Tairas and Jordi Cabot. Cloning in DSLs: Experiments with OCL. 4th Int. Conf. on Software Language Engineering (SLE'11),
53. Jordi Cabot, Patrick Albert, Grégoire Dupé, Marcos Didonet Del Fabro, Scott Uk-Jin Lee: MELO 2011 - 1st Workshop on Model-Driven Engineering, Logic and Optimization. 7<sup>th</sup> European Conference on Modelling Foundations and Applications (ECMFA 2011), pp. 379-380
54. Guillaume Doux, Patrick Albert, Gabriel Barbier, Jordi Cabot, Marcos Didonet Del Fabro and Scott Lee. An MDE-based approach for solving configuration problems. 7<sup>th</sup> European Conference on Modelling Foundations and Applications, LNCS 6698, pp. 160-171.
55. Philip Langer. Konrad Wieland, Manuel Wimmer and Jordi Cabot. From UML Proles to EMF Proles and Beyond. TOOLS Europe 2011, LNCS 6705, pp. 52-67
56. David Ameller, Xavier Franch and Jordi Cabot. Dealing with Non-Functional Requirements in Model-Driven Development. 18th IEEE International Requirements Engineering Conference (RE), 2010, pp. 189-198
57. Jordi Cabot, Jose-Norberto Mazón, Jesús Pardillo, Juan Trujillo: Specifying Aggregation Functions in Multidimensional Models with OCL. 29th International Conference on Conceptual Modeling (ER'10). LNCS 6412, pp. 419'432
58. Massimo Tisi, Jordi Cabot, Frédéric Jouault: Improving Higher-Order Transformations Support in ATL. ICMT2010 - Intl. Conference on Model Transformation. LNCS 6142, pp. 215-229
59. Jordi Cabot, Robert Clarisó, Esther Guerra, Juan de Lara: Synthesis of OCL Pre-Conditions for Graph Transformation Rules, ICMT2010 - Intl. Conference on Model Transformation, LNCS 6142, pp. 45-60
60. Hesam Chiniforooshan, Eric Yu, Jordi Cabot: Situational Evaluation of Method Fragments: an Evidence-Based Goal-Oriented Approach, 22nd International Conference on Advanced Information Systems Engineering (CAiSE'10), LNCS 6051, Springer, pp. 424-428
61. Hugo Brunelière, Jordi Cabot, Cauê Clasen, Frédéric Jouault, Jean Bézivin: Towards Model Driven Tool Interoperability: Bridging Eclipse and Microsoft Modeling Tools. 6th European Conference on Modelling Foundations and Applications, LNCS 6138, Springer, pp. 32-47.
62. Hesam Chiniforooshan, Jordi Cabot, Eric Yu: Adopting Agile Methods. Can Goal-Oriented Social Modeling Help?. 4th Int. Conf. on Research Challenges for Information Systems (RCIS'10), IEEE, pp. 223-234

63. Elena Planas, Jordi Cabot, Cristina Gómez, Esther Guerra, Juan de Lara. Lightweight Executability Analysis of Graph Transformation Rules. VL/HCC 2010, IEEE, pp. 127-130
64. Marco Brambilla, Jordi Cabot, Michael Grossniklaus: Modelling Safe Interface Interactions in Web Applications. 28th Int. Conf. on Conceptual Modeling (ER 2009), LNCS 5829, pp. 387-400
65. Elena Planas, Jordi Cabot, Cristina Gómez: Verifying Action Semantics Specifications in UML Behavioral Models. The 21st International Conference on Advanced Information Systems (CAiSE 2009), LNCS 5565, pp. 125-140
66. Jordi Cabot, Robert Clarisó, Daniel Riera: Verifying UML/OCL Operation Contracts. 7th International Conference on Integrated Formal Methods (IFM 2009), LNCS 5423, pp. 40-55
67. Jordi Cabot, Robert Clarisó, Esther Guerra, Juan de Lara: An Invariant-based Method for the Analysis of Declarative Model-to-Model Transformations. MoDELS 2008, LNCS 5301, pp. 37-51
68. Jordi Cabot, Cristina Gómez: A Catalogue of Refactorings for Navigation Models. 8th International Conference on Web Engineering (ICWE 2008), IEEE Computer Society
69. Jordi Cabot, Robert Clarisó, Esther Guerra, Juan de Lara: Analysing Graph Transformation Rules Through OCL. 1st International Conference on Model Transformation (ICMT 2008), LNCS 5063, pp. 229-244
70. Raquel Pau, Jordi Cabot: Paraphrasing OCL expressions with SBVR. 13th International Conference on Applications of Natural Language to Information Systems (NLDB'08), LNCS 5039, pp. 311-316
71. Jordi Cabot: From Declarative to Imperative UML/OCL Operation Specifications. 26th International Conference on Conceptual Modeling (ER 2007), LNCS 4801, pp. 198-213
72. Jordi Cabot, Cristina Gómez: Deriving Operation Contracts from UML Class Diagrams. 10th International Conference on Model Driven Engineering Languages and Systems (MODELS 07), LNCS 4735, pp. 196-210
73. Marco Brambilla, Jordi Cabot, Sara Comai: Automatic Generation of Workflow-extended Domain Models. 10th Int. Conf. on Model Driven Engineering Languages and Systems (MODELS 07), LNCS 4735, pp. 375-389
74. Jordi Cabot, Jordi Ceballos, Cristina Gómez: On the Quality of Navigation Models with Content-Modification Operations. 7th International Conference on Web Engineering (ICWE 2007), LNCS 4607, pp. 59-73
75. Jordi Cabot, Ernest Teniente: Incremental Evaluation of OCL Constraints. 18<sup>th</sup> Int. Conf. on Advanced Information Systems Engineering (CAiSE 2006), LNCS 4001, pp. 81-95
76. Jordi Cabot, Ernest Teniente: Constraint Support in MDA tools: a Survey. European Conference on Model-Driven Architecture 2006, LNCS 4066, pp. 256-267
77. Marco Brambilla, Jordi Cabot: Constraint tuning and management for web applications. 6th Int. Conf. on Web Engineering (ICWE 2006), pp. 345-352
78. Jordi Cabot, Ernest Teniente: Transforming OCL Constraints: a Context Change approach. 2006 ACM Symposium on Applied Computing, Model Transformation Track, pp. 1196 - 1201
79. Jordi Cabot, Ernest Teniente: Computing the Relevant Instances That May Violate an OCL Constraint. 17<sup>th</sup> Int. Conf. on Advanced Information Systems Engineering (CAiSE 2005), LNCS 3520, pp. 48-62



80. Jordi Cabot, Ruth Raventós: Roles as Entity Types: A Conceptual Modelling Pattern. 23rd International Conference on Conceptual Modeling (ER 2004), LNCS 3288, pp. 69-82
81. Jordi Cabot, Ernest Teniente: Determining the Structural Events That May Violate an Integrity Constraint. 7th International Conference on the Unified modeling Language (UML 2004), LNCS 3273, pp. 320-334
82. Jordi Cabot, Antoni Olivé, Ernest Teniente: Representing Temporal Information in UML. 6th International Conference on the Unified modeling Language (UML 2003), LNCS 2863, pp. 44-59
83. Jordi Cabot, Antoni Olivé, Ernest Teniente: Entity Types Derived by Symbol-Generating Rules. 22nd International Conference on Conceptual Modeling (ER 2003), LNCS 2813, pp. 376-389

## **WORKSHOP, POSTERS, DEMO AND OTHER PAPERS**

1. Dimitrios S. Kolovos, Jordi Cabot: Towards a Corpus of Use-Cases for Model-Driven Engineering Courses. EduSymp/OSS4MDE@MoDELS 2016: 14-18
2. Jordi Cabot, Javier Luis Cánovas Izquierdo, Valerio Cosentino: Community-based Software Development for MDE Tools. EduSymp/OSS4MDE@MoDELS 2016: 45-50
3. Achim D. Brucker, Jordi Cabot, Adolfo Sánchez-Barbudo Herrera: Proceedings of the 16th International Workshop on OCL and Textual Modelling co-located with 19th International Conference on Model Driven Engineering Languages and Systems (MODELS 2016), Saint-Malo, France, October 2, 2016. CEUR Workshop Proceedings 1756, CEUR-WS.org 2016
4. Richard F. Paige, Jordi Cabot, Marco Brambilla, James H. Hill: Proceedings of the 3rd International Workshop on Model-Driven Engineering on and for the Cloud 18th International Conference on Model Driven Engineering Languages and Systems (MoDELS 2015), Ottawa, Canada, September 29, 2015. CEUR Workshop Proceedings 1563, CEUR-WS.org 2016
5. Martin Gogolla, Jordi Cabot: Continuing a Benchmark for UML and OCL Design and Analysis Tools. STAF Workshops 2016: 289-302
6. Achim D. Brucker, Jordi Cabot, Gwendal Daniel, Martin Gogolla, Adolfo Sánchez-Barbudo Herrera, Frank Hilken, Frédéric Tuong, Edward D. Willink, Burkhart Wolff: Recent Developments in OCL and Textual Modelling. OCL@MoDELS 2016: 157-165
7. Gwendal Daniel, Gerson Sunyé, Amine Benelallam, Massimo Tisi, Yoann Vernageau, Abel Gómez, Jordi Cabot: NeoEMF: a Multi-database Model Persistence Framework for Very Large Models. D&P@MoDELS 2016: 1-7
8. Alexander Bergmayr, Hugo Brunelière, Jordi Cabot, Jokin García, Tanja Mayerhofer, Manuel Wimmer: fREX: fUML-based reverse engineering of executable behavior for software dynamic analysis. MiSE@ICSE 2016: 20-26
9. Jordi Cabot, Dimitrios S. Kolovos: Human Factors in the Adoption of Model-Driven Engineering: An Educator's Perspective. ER Workshops 2016: 207-217
10. Salvador Martínez Perez, Valerio Cosentino, Jordi Cabot: Model-based analysis of Java EE web security configurations. MiSE@ICSE 2016: 55-61

11. Javier Luis Cánovas Izquierdo, Valerio Cosentino, Belen Rolandi, Alexandre Bergel, Jordi Cabot: GiLA: GitHub label analyzer. SANER 2015: 479-483
12. Valerio Cosentino, Javier Luis Cánovas Izquierdo, Jordi Cabot: Assessing the bus factor of Git repositories. SANER 2015: 499-503
13. Hugo Bruneliere, Jordi Cabot: On Developing Open Source MDE Tools: Our Eclipse Stories and Lessons Learned. OSS4MDE@MoDELS 2014: 9-19
14. Richard F. Paige, Jordi Cabot, Marco Brambilla, Louis M. Rose, James H. Hill: Proceedings of the 2nd International Workshop on Model-Driven Engineering on and for the Cloud co-located with the 17th International Conference on Model Driven Engineering Languages and Systems, CloudMDE@MoDELS 2014, Valencia, Spain, September 30, 2014. CEUR Workshop Proceedings 1242, CEUR-WS.org 2014
15. Valerio Cosentino, Javier Luis Cánovas Izquierdo, Jordi Cabot: Three Metrics to Explore the Openness of GitHub projects. CoRR abs/1409.4253 (2014)
16. Jordi Cabot, Robert Clarisó: Evaluating the Quality of Software Models using Light-weight Formal Methods. ERCIM News 2014(99) (2014)
17. Valerio Cosentino, Jordi Cabot, Patrick Albert, Philippe Bauquel, Jacques Perronnet: Extracting business rules from COBOL: A model-based tool. WCRE 2013: 483-484
18. Jordi Cabot, Martin Gogolla, István Ráth, Edward D. Willink (Eds.): Proceedings of the MODELS 2013 OCL Workshop co-located with the 16th International ACM/IEEE Conference on Model Driven Engineering Languages and Systems (MODELS 2013), Miami, USA, September 30, 2013. CEUR Workshop Proceedings 1092, CEUR-WS.org 2013
19. Hugo Bruneliere, Jordi Cabot, Stephane Drapeau, Flavien Somda, William Piers, Juan David Villa Calle, Jean-Christophe Lafaurie: MDE Support for Enterprise Architecture in an Industrial Context: the TEAP Framework Experience. GEMOC+AMINO@MoDELS 2013: 53-58
20. Salvador Martínez Perez, Joaquín García-Alfaro, Frédéric Cuppens, Nora Cuppens-Boulahia, Jordi Cabot: Towards an Access-Control Metamodel for Web Content Management Systems. ICWE Workshops 2013: 148-155
21. Salvador Martínez Perez, Valerio Cosentino, Jordi Cabot, Frédéric Cuppens: Reverse Engineering of Database Security Policies. DEXA (2) 2013: 442-449
22. Elena Planas, David Sanchez-Mendoza, Jordi Cabot, Cristina Gómez: Alf-Verifier: An Eclipse Plugin for Verifying Alf/UML Executable Models. ER Workshops 2012: 378-382
23. Salvador Martínez Perez, Jordi Cabot, Joaquín García-Alfaro, Frédéric Cuppens, Nora Cuppens-Boulahia: A model-driven approach for the extraction of network access-control policies. MDsec 2012: 5
24. Cauê Clasen, Frédéric Jouault, Jordi Cabot: VirtualEMF: A Model Virtualization Tool. ER Workshops 2011, LNCS 6999, pp. 332-335
25. Jean Bézivin, Hugo Brunelière, Jordi Cabot, Guillaume Doux, Frédéric Jouault, Jean-Sébastien Sottet. Model Driven Tool Interoperability in Practice. 3rd Workshop on Model-Driven Tool & Process Integration (co-located with ECMFA 2010), pp. 62-72
26. Hugo Brunelière, Jordi Cabot, and Frédéric Jouault. Combining Model-Driven Engineering and Cloud Computing, MDA4ServiceCloud workshop (co-located with ECMFA 2010)

27. Hugo Brunelière, Jordi Cabot, Frédéric Jouault, Massimo Tisi, Jean Bézivin. Industrialization of Research Tools: the ATL Case. 3rd International Workshop on Academic Software Development Tools and Techniques co-located with ASE 2010
28. Hugo Brunelière, Jordi Cabot, Frédéric Jouault, Frédéric Madiot. MoDisco: A Generic And Extensible Framework For Model Driven Reverse Engineering. ASE'10 tool demonstration.
29. Marco Brambilla, Jordi Cabot, Michael Grossniklaus: Tools for Modeling and Generating Safe Interface Interactions in Web Applications. ICWE 2010: 482-485.
30. Jordi Cabot, Jose-Norberto Mazón, Jesús Pardillo, Juan Trujillo. Extending OCL for Modeling Statistical Functions in UML Conceptual Schemas. CAiSE Forum 2009. To appear
31. Jordi Cabot, Steve Easterbrook, Jennifer Horkoff, Jose-Norberto Mazón, Lysanne Lessard and Sotirios Liaskos: Integrating Sustainability in Decision-Making Processes: A Modelling Strategy. New Ideas and Emerging Results - ICSE 2009. To appear
32. Marsha Chechik, Winnie Lai, Shiva Nejati, Jordi Cabot, Zinovy Diskin, Steve Easterbrook, Mehrdad Sabetzadeh and Rick Salay: Relationship-Based Change Propagation: A Case Study. Workshop on Modeling in Software Engineering - MiSE 2009 (ICSE 2009), ICSE companion proceedings, 207-210
33. Jordi Cabot, Jose-Norberto Mazón, Jesús Pardillo, Juan Trujillo: Extending OCL for Modeling Statistical Functions in UML Conceptual Schemas. CAiSE Forum 2009.
34. Hesam Chiniforooshan, Jordi Cabot, and Eric Yu. Introducing Agile Methods: Can Goal-Oriented Process Modelling help?. Consortium for Software Engineering Research (Canada national meeting in SE). Poster presentation.
35. Jordi Cabot, Eric Yu: Improving Requirements Specifications in Model-Driven Development Processes. 1st Int. Workshop on Challenges in Model-Driven Software Engineering (MoDELS'08).
36. Jordi Cabot, Nicola Zannone: Towards an Integrated Framework for Model-driven Security Engineering. Modeling Security Workshop (MoDELS'08). CEUR Workshop Proceedings: <http://ceur-ws.org/Vol-413>
37. Jordi Cabot, Robert Clarisó: UML/OCL Verification in practice. 1st Int. Workshop on Challenges in Model-Driven Software Engineering (MoDELS'08)
38. Jordi Cabot, Robert Clarisó, Daniel Riera: Verification of UML/OCL Class Diagrams Using Constraint Programming. MoDeVVA 2008 (Model Driven Engineering, Verification, and Validation: Integrating Verification and Validation in MDE).
39. Jordi Cabot, Robert Clarisó, Daniel Riera: UMLtoCSP: a Tool for the Formal Verification of UML/OCL Models using Constraint Programming. Demonstration at the 22th Int. Conf. on Automated Software Engineering (ASE'07).
40. Marco Brambilla, Jordi Cabot, Nathalie Moreno: Tool Support for Model Checking of Web application designs. 7th International Conference on Web Engineering (ICWE 2007), Industrial Track, LNCS 4607, pp. 533-538
41. Jordi Cabot, Ernest Teniente: A Tool for the Efficient Evaluation of OCL Constraints. Poster and Demo session at the MODELS'06 conference
42. Jordi Cabot, Ernest Teniente: A metric for measuring the complexity of OCL expressions. Model Size Metrics Workshop (workshop co-located with the MODELS'06 Conference).
43. Jordi Cabot: Ambiguity issues in OCL postconditions. OCL for (Meta-) Models in Multiple Application Domain (workshop co-located with the MODELS'06 Conference)

44. Jordi Cabot, Jordi Conesa: Automatic Integrity Constraint Evolution due to Model Subtract Operations. ER (Workshops) 2004, LNCS 3289, pp. 350-362
45. Marcus Alanen, Jordi Cabot, Miguel Goul o, José Sáez: Doctoral Symposium. UML Satellite Activities 2004, pp. 85-93
46. Jordi Cabot, Cristina Gómez: A simple yet useful approach to implementing UML Profiles in CASE tools. 2nd UML Workshop in Software Model Engineering, 2003

## NATIONAL CONFERENCES AND JOURNALS

1. Editor (con Jesús García Molina y Gustavo Rossi). Monografía “Adopción industrial de la ingeniería del software dirigida por modelos”. Novatica 228, 2014
2. Javier Luis Cánovas Izquierdo, Jordi Cabot. Creación Colaborativa de Lenguajes Específicos de Dominio Jornadas de Ingeniería del Software y Bases de Datos, (JISBD), 2012.
3. Caue Classen, Frédéric Jouault, Jordi Cabot. IDM 2011 (french conference on MDE).
4. Valerio Cosentino, Guillaume Doux, Patrick Albert, Gabriel Barbier, Jordi Cabot, Marcos Didonet del Fabro, Scott Lee. Une approche de MDE pour la résolution de problèmes de configuration : Une application à la plate-forme Eclipse. IDM 2011
5. Jordi Cabot, Cristina Gómez, Elena Planas, M.Elena Rodríguez: Reverse Engineering of OO constructs in Object-Relational Database Schemas. JISBD 2008.
6. Jordi Cabot, Cristina Gómez: Generating Operation Contracts from UML Class Diagrams: A Template-based Approach. IV Taller sobre Desarrollo de Software Dirigido por Modelos, MDA y Aplicaciones (DSDM'07)
7. Marco Brambilla, Jordi Cabot, Sara Comai: Generating Extended Conceptual Schemas from Business Process Models. 15th Italian Symposium on Advanced Database Systems (SEBD'07), pp. 282-289.
8. Jordi Cabot, Ernest Teniente: Generación Automática de Restricciones de Integridad: Estado del Arte. II Taller sobre Desarrollo de Software Dirigido por Modelos, MDA y Aplicaciones (DSDM'05). CEUR Workshop Proceedings, ISSN 1613-0073, online <http://CEUR-WS.org/Vol-157/>
9. Jordi Cabot: La relación de materialización en UML. JISBD 2003, pp. 177-186. (JISBD is the Spanish Conference in Software Engineering and Databases)
10. Ruth Raventós, Jordi Cabot: A Conceptual Modelling Pattern for Roles. JISBD 2003, pp. 421-430
11. Jordi Cabot, Rodolfo García, Zipora Almaleh, Paloma Cáceres, Esperanza Marcos, M<sup>a</sup> José Vázquez: UML en el diseño de bases de datos relacionales. Novática, 150, pp. 62-66, 2001

## **APPENDIX B. FULL LIST OF TEACHING PUBLICATIONS**

---

### **PARTICIPATION AT SUMMER SCHOOLS**

1. SFM-12 (International School on Formal Methods) MDE Summer School. June 2012

### **COLLABORATIONS IN TEACHING BOOKS**

1. Software engineering of distributed and component-based systems. Jordi Cabot (coordinator). Josep Maria Camps, Jordi Ceballos, Francisco Durán, Nathalie Moreno, José Raúl Romero, Antonio Vallecillo (authors), UOC Publishing Company, ISBN 978-84-690-4496-4. Catalan and Spanish versions available, 2006
2. Object-oriented software engineering *Enginyeria del Programari Orientat a l'Objecte*. Jordi Cabot, Isabel Guitart (coordinators). Jordi Fernández, Jordi Pradel, José Antonio Raya (authors), UOC Publishing Company, ISBN 84-9788-311-X. Catalan and Spanish versions available, 2005
3. Scanning the Computer Science (introductory computer science book). Joan Arnedo Moreno, Jordi Cabot Sagrera, Isabel Guitart Hormigo, Francisco Javier Noguera Otero, Rafael Macau Nadal, Joan Antoni Pastor Collado, Daniel Riera Terrén, Jordi Tubella Murgadas, José Ramón Rodríguez Bermúdez, M. Elena Rodríguez González (authors) M. Jesús Marco Galindo, Josep M. Marco-Simó, Josep Prieto Blázquez, Ramón Segret Sala (eds.) UOC Publishing Company, Catalan and Spanish versions available, 2010

### **INTERNATIONAL TEACHING PUBLICATIONS**

1. Jordi Cabot, Massimo Tisi. The MDE Diploma: First International Postgraduate Specialization in Model-Driven Engineering. *Journal of Computer Science Education*, 21(4), 389-402, 2011
2. Jordi Cabot, Francisco Durán, Nathalie Moreno, Raúl Romero, Antonio Vallecillo: From Programming to Modeling: our Experience with a Distributed Software Engineering Course. 30<sup>th</sup> Int. Conf. on Software Engineering (Education Track)
3. Jordi Cabot, Francisco Durán, Nathalie Moreno, Raúl Romero, Antonio Vallecillo: Shifting the Focus from Programming to Modeling in a Distributed Software Engineering Course. *Educators Symposium at the MODELS'07 conference*.
4. M. Elena Rodríguez, Montse Serra, Jordi Cabot, Isabel Guitart: Evolution of Teacher Roles and Figures in E-learning Environments. 6th IEEE International Conference on Advanced Learning Technologies (ICALT 2006)

### **NATIONAL TEACHING PUBLICATIONS**

1. Jordi Cabot. *Ingeniería del Software*. Capítulo de libro. Título: “Escaneando la Informática”. Editorial UOC. M. Jesús Marco Galindo, Josep M. Marco-Simó, Josep Prieto Blázquez, Ramón Segret Sala (eds.)
2. Isabel Guitart, M. Elena Rodríguez, Jordi Cabot, Montse Serra: Selecting the right evaluation model: a case study for Software Engineering Subjects (Title in Spanish: “Elección del modelo de evaluación: caso práctico para asignaturas de ingeniería del

- software”. XII Jornadas de Enseñanza Universitària de la Informàtica (JENUI 2006), pp. 191-198
3. Santi Caballé, Jordi Cabot, Jordi Conesa, Robert Clarisó, Elena Planas, Daniel Riera : Cuckoo – a web platform for the verification of UML models (Title in Spanish: “CUCKOO – una plataforma web para la verificaci3n de modelos UML). XV Jornadas de Enseñanza Universitària de la Informàtica (JENUI 2009).

## APPENDIX C. PARTICIPATION IN OTHER RESEARCH PROJECTS

---

Complementary list of projects to those mentioned in the “Research Projects / Funding” section. I had an active participation in all these projects but I was not the person representing our team in the proposal / creation of the project.

### European

#### 2009 – 2012 *OPEES* European Project

OPEES is an industrial Consortium for the definition, elaboration and deployment of an Open Platform for the Engineering of Embedded Systems. The partners are Industrial (Airbus, EADS Astrium, Continental Automotive, STMicroelectronics, Schneider Electric, FT R&D, participation from clusters, Thales), Research and University (EA LIST, INRIA, IFP, LAAS, ENSEEIHT, Verimag) and Vendors and service providers ( OBEO, CS, ...). The OPEES initiative is common to three competitiveness clusters: Aerospace Valley, Systematic and Minalogic. The mission of OPEES is to build a community able to ensure long-term availability of innovative engineering technologies in the domain of dependable / critical software-intensive embedded systems. Its main objectives are to secure the industrial strategy, improve their competitiveness and develop the European software industry. Our schema of open source industrial collaboration (e.g. around ATL) will be tested and developed as a team contribution to this project

#### 2009 – 2012 *CESAR* European Project

CESAR stands for Cost-efficient methods and processes for safety relevant embedded systems and is an ARTEMIS European funded project. CESAR pursues a multi-domain approach integrating large enterprises, suppliers, SME's and vendors of cross sectoral domains and cooperating with leading research organizations and innovative SME's. Our work in CESAR consists of providing model virtualization techniques to provide a unified view of the system by mixing different partial models, each one focusing on a given aspect of the system.

#### 2007-2008. *Spanish-Italian Integrated action.*

PI: Ernest Teniente. Funded by the Spanish Ministry of Science and Technology and the Italian Government.

### National

#### 2010 – 2012 *Galaxy ARPEGE* French Project

This ARPEGE project focuses on the problem of model driven collaborative development of complex systems. The project partners are Airbus, IRIT, LIP6, AKKA and Softeam. Galaxy aims at defining an open and flexible architecture particularly designed to be scalable. One of the key points is related to the

fragmentation and distributiveness of huge models, their relationship and synchronization. Our work in this project is related to the Megamodeling concept and the languages required to manipulate and query these large sets of models.

**2008 – 2011 *IDM++*.**

This is a RNTL project started in January 2008 for three years with ILOG/IBM, MIA-Software and CEA as partners. The goal is to advance the state of the art in MDE. To this end we are working on model weaving, global model management, and model configuration topics. Experimentation on synergies between MDE and constraint programming (for example to check the correctness of Eclipse configuration problems) are also being researched as part of the this project. PI:Patrick Albert

**2009 – 2013. *CICYT Project. TIN2008-00444/TIN***

Spanish national project. Design and construction of a Conceptual Modeling Assistant. PI: Antoni Olivé. Funded by the Spanish Ministry of Science and Technology.

**2008 – 2010. *National Spanish Network of Excellence on Model-driven Engineering.***

Network to facilitate the knowledge exchange around MDE. PI: Antonio Vallecillo. PI of the local UOC node: Jordi Cabot. Funded by the Spanish Ministry of Science and Technology.

**2006 - 2008. *CICYT Project. TIN2005-06053.***

Spanish national Project. “Construcción de un entorno integrado para el desarrollo centrado en el esquema conceptual de sistemas de información”. Funded by the Spanish Ministry of Science and Technology.

**2002 – 2005. *CICYT Project. TIC2002-00744.*** Spanish national Project.

Desarrollo de un entorno avanzado de ayuda a la modelización conceptual. Funded by the Spanish Ministry of Science and Technology.