

# RÉSUMÉ

## Dr. Raúl MAZO

**Associate Professor at Université Paris 1 Panthéon – Sorbonne since 2012  
Centre de Recherche en Informatique (CRI), EA1445**

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<b>Citizenships</b>	French, Colombian
<b>Birth date</b>	31/05/1982
<b>Marital status</b>	Married without children

### 1. Education

- 2008–2011 **Ph.D. in Computer Science with highest honors (“félicitations du jury”)**, University Panthéon Sorbonne (Paris 1), Paris, France.
- 2006–2008 **M.Sc. Information Systems with honors (second best graduated student)**, University Panthéon Sorbonne (Paris 1), Paris, France.
- 2000–2005 **Engineering diploma in Computer Science with high honors (best graduated student of the Engineering Faculty)**, University of Antioquia, Medellin, Colombia.

### 2. Employment

- Sept. 2012 – Present **Associate Professor at Panthéon Sorbonne University**, Paris-France.  
I am in charge of the following courses: Database programming (Bachelor), Architecture of component-based Web applications (Master), Development of configurable and (self) adaptable systems (Master), and Variability Management and Product Line Engineering (Master-PhD).
- Sept. 2011 – Sept. 2012 **Lecturer at EFREI Engineering School**, Villejuif-France.  
Introduction to ERP Systems, and Enterprise Application Integration Architecture.
- Sept. 2008 – Sept. 2011 **Assistant Lecturer at Panthéon Sorbonne University**, Paris-France.  
PHP Programming, and Design of Data Bases.
- Jan. 2006 – Aug. 2006 **Trainer at the National Directorate of Taxes and Customs of Colombia – DIAN (Medellín, Colombia)**.  
I was in charge of training the DIAN's Department of Telecommunications in network security, server administration and operating systems.
- Aug. 2004 – Aug. 2006 **Telecommunications engineer at the University of Antioquia (Medellín, Colombia)**.  
Administration of the institutional network and its associated services.
- Jan. 2002 – Aug. 2004 **Developer at the “Ingeniería y Software” research center (Medellín, Colombia)**.  
Implementation of a Java tool for the definition of learning objectives and the subsequent retrieval of the associated “learning objects” from a DB.

### 3. Expertise

My research focuses on requirements engineering, and model-based development of (dynamic) product lines.  
However, my last cooperation with several research teams worldwide led me to work on other topics like security requirements, component-based software engineering, and recommendation techniques.

## 4. Activities and Projects

### Working Groups

I am actively involved in the following groups:

- Evaluation of industrial projects for the French Ministry of Higher Education and Scientific Research (*Expert agréé CIR auprès du Ministère de l'Enseignement Supérieur et de la Recherche*).
- Member of the “Centre de Recherche en Informatique” (CRI), University Panthéon Sorbonne, Paris - France.
- Member of the “Groupe de Travail sur les Ligne de Produits de l'Association Française d'Ingénierie Système” (AFIS) at Paris - France.

### Research Activities

My main research activities are summarized below.

- **Invited keynotes (12).** I have been invited as a keynote for the following events:
  - *Product Line Engineering: a reference implementation framework* at REVASOFT (Medellin-Colombia), 7 December 2015
  - *Product Line Engineering: Success Stories, Industrial and Academic Opportunities* at REVASOFT (Cali-Colombia), 27 November 2014
  - *Introduction to Product Line Engineering*. At the Research meeting of the National Polytechnic School (Quito-Ecuador), 20 October 2014
  - *How to use product line engineering techniques to improve configuration of ERP systems* at "Jornadas de Ingeniería de Sistemas Informáticos y de Computación" (Quito-Ecuador), 21 October 2014
  - *Variability modeling* at "Atelier d'Ingénierie des Exigences" of the INFORSID conference (Lyon-France), 20 May 2014
  - *Dynamic Product Lines and Smart Configuration* at "20ème Journée Thématique AFIS sur l'Ingénierie Système des Lignes de Produits" (Paris-France), 15 May 2014.
  - *Dynamic product line engineering: a research agenda*. Research day of the Pontificia Universidad Javeriana (Cali-Colombia) 2014
  - *How to use Bayesian Networks for Forecasting on Product Line Production Environments* at "Journées GLORY" (Hammamet-Tunes), 6 February 2014.
  - "Journée de Lignes de Produits" (Paris-France) 2013
  - *Heuristic-based recommendation on configuration of complex systems*. "Journée BR4CP" (Toulouse-France), June 2013
  - *Software factories and variability management*. Week of Product Line Engineering (Medellin-Colombia) 2012
  - *A tool for verification of product line models*. "Journée de Lignes de Produits" (Paris-France) November 2011
- **Conference speaker (15).** I did the following speaks on conferences and workshops:
  - *Three strategies to Specify Multi-Instantiation in Product Lines*. IEEE International Conference on Research Challenges in Information Science (RCIS), IEEE Press, Athens-Greece, May 13-15 2015.
  - *Feature Relations Graphs: A Visualisation Paradigm for Feature Constraints in Software Product Lines*. In the 2nd IEEE Working Conference on Software Visualization (VISSOFT 2014), Victoria-Canada, 29-30 September 2014
  - *Método para Identificar Correcciones de Defectos en Modelos de Características que representan Líneas de Productos*. In the XL Latin American Computing Conference (CLEI), Montevideo-Uruguay, 15-19 September 2014
  - *Towards a Requirements Specification Multi-View Framework for Self-Adaptive Systems*. In the XL Latin American Computing Conference (CLEI), Montevideo-Uruguay, 15-19 September 2014
  - *Material Needs Forecast for Product Lines, a Bayesian-based Analysis Approach*. 25th International Conference on Software and Systems Engineering and their Applications (ICSSEA), Paris-France, November 2013
  - *Capturing Variability in Model-based Systems Engineering Process*. Complex Systems Design & Management (CSD&M) Conference, Paris-France, 4-6 December 2013

- *Subconjuntos Mínimos de Corrección para explicar características muertas en Modelos de Líneas de Productos. El caso de los Modelos de Características.* 8th Computer Colombian Conference (CCC). Armenia-Colombia, August 19-23, 2013
  - *VariaMos: a Tool for Product Line Driven Systems Engineering with a Constraint Based Approach.* 24th International Conference on Advanced Information Systems Engineering (CAiSE Forum'12), Gdansk-Poland, 25-29 June 2012
  - *Transforming Attribute and Clone-Enabled Feature Models Into Constraint Programs Over Finite Domains.* 6th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE), Beijing-China, 8-11 June 2011
  - *Conformance Checking with Constraint Logic Programming: The Case of Feature Models.* In 35th Annual International Computer Software and Applications Conference (COMPSAC), Munich-Germany, 18-22 July 2011
  - *Constraints: the Core of Product Line Engineering.* Fifth IEEE International Conference on Research Challenges in Information Science (RCIS), Guadeloupe-French West Indies, France, 19-21 May 2011
  - *Using Constraint Programming to Verify DOPLER Variability Models.* 5th International Workshop on Variability Modelling of Software-intensive Systems (VaMOS'11), Namur-Belgium, January 27th-29th, 2011
  - *Criteria for the verification of feature models.* In 28th INFORSID (INformatique des ORganisations et Systèmes d'Information et de Décision) Conference, Marseille - France, May 2010
  - *A Method based on Association Rules to Construct Product Line Models.* 4th International Workshop on Variability Modelling of Software-intensive Systems "Celebrating 20 Years of Feature Models", Linz-Austria, January 2010
  - *VMWare: Tool Support for Automatic Verification of Structural and Semantic Correctness in Product Line Models.* International Workshop on Variability Modelling of Software-intensive Systems (VaMoS), Sevilla-Spain, January 2009
- **Graduate (co) supervision (40):**
  - Co-advisor of one completed Ph.D. these. Cosmin Dumitrescu, "CO-OVM: A Practical Approach to Systems Engineering Variability Modeling", Paris 1 University, June 2014. This Ph.D. these was funded by a CIFRE convention with Renault, and it was advised by Professor Camille Salinesi
  - 6 Ph.D. thesis in progress at Panthéon Sorbonne University. "A generic and extensible requirements engineering framework for self adaptive software systems" by Juan-Carlos Muñoz (2013-2016), "A quality-based simulation method for (re) configuration of products in dynamic software product line engineering" by Irina Raicu (2014-2017), Improvement of product line configuration and derivation processes by Juan-Carlos Martinez (2015-2018), A constraint programming-based framework for software product line engineering approach in by Angela Villota (2015-2018), Empirical validation of the product line engineering production approach in industry, by Luisa Rincon (2015-2018), and A generic approach for run-time re-configuration of component-based self-adaptive software systems, by Danillo Sprovieri (2015-2018). I participate as co-advisor, the advisor of the first 5 theses on Computer science is Professor Camille Salinesi, and the advisor of the last PhD project is Professor Carine Souveyet.
  - 8 Master of Science's thesis completed; from which one at Colombian National University (I participated as co-advisor with Pr. Gloria Giraldo), and seven in the Master SID of Paris 1 University (I participated as co-advisor, with Pr. Camille Salinesi, of five, and advisor of two of these master projects)
  - 4 Master of Science's thesis in progress; from which one at Colombian National University and tree at University of Antioquia (Colombia)
  - 21 professional master thesis at Paris 1 University since 2012. In particular, for the following diplomas: *Master 2 MIAGE classique*, *Master 2 IKSEM* and *Master 2 SIC*
- **Co-organizer of conferences and workshops (8).** I have participated in the organization of the following conferences and workshops:
  - Forum of Reuse and Variability Management in Software Engineering (REVASOFT), Cali-Colombia, November 2014, and Medellin-Colombia, December 2015.  
<https://sites.google.com/site/foroindustriavariabilidad>
  - "Journée Industrielle de Lignes de Produits" Paris-France, May 15 2014.
  - "Journée de Lignes de Produits édition 2013" Paris-France, November 29 2013.
  - RCIS'13. 7th IEEE International Conference on Research Challenges in Information Science, May 29-31 2013, Paris, France. <http://rcis-conf.com/rcis2013/>

- INFORSID'13. 31th French Conference on *INformatique des ORganisations et Systèmes d'Information et de Décision* (INFORSID). May 29-31 2013, Paris, France. <http://inforSID.fr/Paris2013/>
- "Journée de Lignes de Produits édition 2011" Paris-France, 21 October 2011, <http://www.jldp.org/>
- "Journée de Lignes de Produits édition 2010" Paris-France, 20 October 2010, <https://sites.google.com/site/journeespl/>
- **Co-chair (5)** of the following conferences and workshops: REVASOFT 2014, 2015, REFSQ workshops 2013, and "Journée de Lignes de Produits" 2013 & 2011.
- **PC member (19)** of the following conferences and workshops: INFORSID 2016, 2015; *Workshop en Ingeniería de Requisitos* (CIBSE-WER) 2016, 2015, 2014; CIBSE Industrial Track 2016; Software Engineering Track (CIBSE-SET) 2016; CIBSE 2016, 2015, 2014; REFSQ 2017, 2015, 2014, 2013; CLEI 2016, 2015, 2014, 2013, 2012; RCIS 2014; RCIS Doctoral Symposium 2014; REVE 2014; CAiSE Forum 2013; VarIS 2013; MajeSTIC 2010.
- **Reviewer (8)** of the following **journals**: Transaction on Software Engineering 2014, 2015, ISI/RSTI 2015, ACM Computing Surveys 2015, Journal of Software Engineering Research and Development (Springer) 2014, Entropy (ISSN 1099-4300) 2014, Journal of Systems & Software (Elsevier) 2013, STTT Special Section on SW-Diversity 2012.
- **External reviewer (10)** of the following **conferences and workshops**: ECIS 2013, ICECCS 2012, RE 2011, RE 2010, CAiSE 2011, CAiSE 2010, INAP 2011, VaMOS 2012, 2011, 2010.

### **Research Projects (7)**

I have participated in the drafting and execution of several research projects as briefly presented below:

- Member and co-author of the project CONFIGURE "Improving configuration of product lines". Financed by PHC UTIQUE program (5.625€ x 3 years + 500€ = 17.375€). Consortium: OXIA, SIBTEL, Laboratoire RIADI (Tunisie), Panthéon Sorbonne University. Period: 2016 - 2019.
- Member of the project CEA-IoT "Centro de Excelencia y Apropiación en Internet de las Cosas". Financed by COLCIENCIAS (the Colombian National Agency of Research) and MinTIC (the Colombian ICT Ministry) (~730.000€). Consortium: Pontificia Universidad Javeriana, Universidad Autónoma de Bucaramanga, Universidad Tecnológica de Bolívar, Universidad Santo Tomás, HP Colombia, Intel Colombia, Microsoft Colombia, Hospital Universitario San Ignacio, Banco Pichincha, Logyca, Zona Franca de Bogotá, Totto. Period: 2016-2021.
- Member and co-author of the project "Verification of Product Lines". Funded by COLCIENCIAS (~140.000€). Period: November 2013 - November 2016. Consortium: University of Antioquia, Colombian National University, and Paris 1 Panthéon – Sorbonne University.
- Member and co-author of the project "Evolution and data-mining of Product Lines". Funded by COLCIENCIAS (~140.000€). Period: January 2013 - January 2016. Consortium: University of Antioquia, Colombian National University, and Paris 1 Panthéon – Sorbonne University.
- Member of the project OnMap Campus (Development of a platform to build serious games by means of a product line production approach). Financed by FEDER (180.000€). Period: 2013-2016.
- Member of the project BR4CP "Models and algorithms for recommendation and preference management in product configuration". Financed by the French National Agency of Research (~400.000€). Consortium: CRIL, RENAULT, IRIT, LIRMM, Cameleon, IBM. Period: 2012-2015.
- Member of the project "Learning objectives for a system of self-assessment based on natural language". Financed by the CODI institute of the University of Antioquia (~25.000€). Period: 2004-2007.

## **5. Awards**

- 2014 **Best Paper Award** - Jornadas de Ingeniería de Sistemas Informáticos y de Computación. *Using Software Product Line to improve ERP Engineering: literature review and analysis*
- 2013 **Best Paper Award** - International conference on Complex Systems Design & Management (CSD&M). *Capturing Variability in Model-based Systems Engineering Process*.

- 2013 **70 years of the Engineering Faculty award**, for outstanding graduate of the Computer and Systems Engineering Program of the University of Antioquia.
- 2011 **Best Paper Award** - 35rd Annual International Computer Software and Applications Conference (COMPSAC), Munich-Germany, 18-22 July 2011.  
*Conformance Checking with Constraint Logic Programming: The Case of Feature Models.*
- 2011 **Best Paper Award** - 5th IEEE International Conference on Research Challenges in Information Science (RCIS), Guadeloupe-French West Indies, France, 19-21 May 2011.  
*Constraints: the Core of Product Line Engineering.*
- 2008 **Order of merit of Carolina del Principe** as Distinguished Citizen.
- 2005 **Award to the best-graduated student** of the University of Antioquia's Engineering Faculty.
- 1999 **Award to the best-graduated student** of the secondary school "Presbítero Julio Tamayo".

## 6. Scientific publications and prototypes

### PhD. Thesis

1. **Mazo Raúl.** [A generic approach for automated verification of product line models](#). Ph.D. thesis, Université Paris 1 Panthéon - Sorbonne, November 2011, Paris, France.

### Book chapters (5)

2. Rebecca Deneckere, Charlotte Hug, Ali Jaffal, Manuele Kirsch Pinheiro, Benedicte Le Grand, Raul Mazo, Irina Rychkova. Context Management and Intention Mining for Adaptive Systems in Mobile Environments: from Business Process Management to Video Games? In Digital Interfaces in Situations of Mobility: Cognitive, Artistic, and Game Devices, 2016.
3. Álvarez G., **Mazo R.**, Urrego G., Giraldo G.L., Tamura G., Martínez J.C., Rincón L.F., Pabón M.C, Villota A., Muñoz-Fernández J.C, Villegas N., Parra C. Lecciones aprendidas y agenda de trabajo académico-industrial para mejorar la gestión de la reutilización y la variabilidad en la ingeniería de software colombiana. Hacia la aplicación de la reutilización y la variabilidad en la industria del software en Colombia (memorias del primer foro REVASOFT), pp. 74–76, Cali-Colombia, ISBN 978-3-540-71436-1, 2015
4. **Mazo R.**, Dumitrescu C., Salinesi C., Diaz D. Recommendation Heuristics for Improving Product Line Configuration Processes. Recommendation Systems in Software Engineering. Robillard M, Maalej W., Walker R. and Zimmermann T. (Eds.). Springer. 2013.
5. Salinesi C., Triki R., **Mazo R.** Combining configuration and recommendation to define an interactive product line configuration approach. Les systèmes de recommandation. Editeurs: Ghislaine CHARTRON, Imad SALEH et Gérald KEMBELLEC. Editions Hermes Sciences, collection 'Information, hypermédias et communication'. Paris-France, 2013
6. Salinesi C., **Mazo R.** Defects in Product Line Models and how to Identify them. Software Product Line - Advanced Topic, edited by Abdelrahman Elfaki, InTech editions, ISBN 978-953-51-0436-0, pp. 97-122. April 2012.

### Articles in peer-reviewed journals (13)

7. Rincón Luisa, Giraldo Gloria-Lucía, **Mazo Raúl**, Salinesi Camille, Diaz Daniel. Method to Identify Corrections of Defects on Product Line Models. Electronic Notes in Theoretical Computer Science (ENTCS) Journal, vol. 314, pp. 61–81, Jun. 2015.
8. Muñoz-Fernández Juán, Tamura Gabriel, **Mazo Raúl**, Salinesi Camille. Towards a Requirements Specification Multi-View Framework for Self-Adaptive Systems. In CLEI electronic journal, Volume 18, Number 2, Paper 5, August 2015

9. Souag Amina, **Mazo Raúl**, Salinesi Camille, Comyn-Wattiau Isabelle. Reusable knowledge in security requirements engineering: a systematic mapping study. Requirements Engineering Journal, ISSN: 0947-3602 (Print) 1432-010X (Online), Springer London, <http://dx.doi.org/10.1007/s00766-015-0220-8>, 2015.
10. **Mazo Raúl**. Avantages et limites des modèles de caractéristiques dans la modélisation des exigences de variabilité. To appear in Journal Génie Logiciel, No. 111, Paris-France, Dec. 2014
11. **Mazo Raúl**, Assar Saïd, Salinesi Camille, Ben Hassen Noura. Using Software Product Line to improve ERP Engineering: literature review and analysis. Latin-American Journal of Computing (LAJC), Volume 1, Number 1, Published by the National Polytechnic School in Quito-Ecuador, October 2014.
12. Giraldo-Gómez Gloria-Lucia, Rincón-Perez Luisa, **Mazo Raúl**. Identifying dead features and their causes in product line models: an ontological approach. Revista DYNA. ISSN: 0012-7353. Vol. 81, No. 183, p. 68 - 77, 2014.
13. Rincón-Perez Luisa, Giraldo-Gómez Gloria-Lucia, **Mazo Raúl**, Salinesi Camille. An ontological rule-based approach for analyzing dead and false optional features in feature models. Electronic Notes in Theoretical Computer Science. ISSN: 1571-0661. vol. 302, p. 111- 132, 2014.
14. Alférez Harvey, Pelechano Vicente, **Mazo Raúl**, Salinesi Camille, Diaz Daniel. Dynamic Adaptation of Service Compositions with Variability Models. Article title: Dynamic Adaptation of Service Compositions with Variability Models. The Journal of Systems & Software, Elsevier, DOI: 10.1016/j.jss.2013.06.034, 25-JUN-2013.
15. Dumitrescu Cosmin, Dauron Alain, Salinesi Camille, **Mazo Raúl**. La Réutilisation en Ingénierie de Systèmes à Base de Modèles: Processus et Activités IS pour l'Adoption d'une Approche Lignes de Produits, Genie Logiciel N° 105, pages 52-59, Paris-France, June 2013.
16. Sawyer P., **Mazo R.**, Diaz D., Salinesi C., Hughes D. Constraint Programming as a Means to Manage Configurations in Self-Adaptive Systems. Special Issue in IEEE Computer Journal "Dynamic Software Product Lines", pp. 1-12. ISSN 0018-9162, October 2012.
17. **Mazo R.**, Salinesi C, Djebbi O., Diaz D., Lora-Michiels A. Constraints: the Heart of Domain and Application Engineering in the Product Lines Engineering Strategy. International Journal of Information System Modeling and Design IJISMD. pp. 33-68. ISSN 1947-8186, eISSN 1947-819. April-June 2012, Vol. 3, No. 2.
18. **Mazo R.**, Salinesi C., Diaz D. Abstract Constraints: A General Framework for Solver-Independent Reasoning on Product Line Models. Accepted on INSIGHT - Journal of International Council on Systems Engineering (INCOSE), December 2011, Volume 14 Issue 4, pp. 22-24. [http://www.panetto.fr/INSIGHT\\_vol-14-issue-4.pdf](http://www.panetto.fr/INSIGHT_vol-14-issue-4.pdf)
19. Jaramillo A., Duitama F., Velez F, **Mazo R.** Búsqueda de objetos de aprendizaje a partir de objetivos instruccionales escritos en lenguaje natural. Journal TECNO-LÓGICAS, ITM – Medellín-Colombia, pp. 185 - 201, Vol. 1, num. 19. ISSN 0123-7799. December 2007.

#### **International conferences and workshops with PC (21)**

20. Manuele Kirsch-Pinheiro , Raúl Mazo, Carine Souveyet, Danillo Sprovieri. Requirements Analysis for Context-oriented Systems. In the 7th International Conference on Ambient Systems, Networks and Technologies (ANT), Madrid-España 2016.
21. Dounas Lamiae, **Mazo Raúl**, Salinesi Camille, El-Beqqali Omar. Continuous Monitoring of Adaptive e-learning Systems Requirements. 12th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA), Marrakech-Morocco, November 17-20, 2015.
22. Dounas Lamiae, **Mazo Raúl**, Muñoz-Fernandez Juan, Salinesi Camille, El-Beqqali Omar. Runtime Requirements Monitoring Framework for Adaptive e-Learning Systems. 26th International

Conference on Software & Systems Engineering and their Applications (ICSSEA), Paris-France, May 27-29, 2015

23. Muñoz-Fernández Juan-C., Tamura Gabriel, Raicu Irina, **Mazo Raúl**, Salinesi Camille. REFAS: A PLE Approach for Simulation of Self-Adaptive Systems Requirements. 19th International Software Product Line Conference (SPLC), Nashville-USA, July 20-24, 2015.
24. **Mazo Raúl**, Muñoz-Fernández Juan, Rincón Luisa, Salinesi Camille, Tamura Gabriel. VariaMos: an extensible tool for engineering (dynamic) product lines. 19th International Software Product Line Conference (SPLC), Nashville-USA, July 20-24, 2015.
25. Triki Raouia, Salinesi Camille, **Mazo Raúl**. Three strategies to Specify Multi-Instantiation in Product Lines. IEEE International Conference on Research Challenges in Information Science (RCIS), IEEE Press, Athens-Greece, May 13-15 2015.
26. Amina Souag, Camille Salinesi, **Raúl Mazo**, Isabelle Comyn-Wattiau. A Security Ontology for Security Requirements Elicitation. To appear in the proceedings (Lecture Notes in Computer Science Series) of the International Symposium on Engineering Secure Software and Systems (ESSOS). Milan, Italy, March 4 - 6, 2015.
27. Martinez Jabier, Ziadi Tewfik, **Mazo Raúl**, Bissyandé Tegawendé, Klein Jacques, Le Traon Yves. Feature Relations Graphs: A Visualisation Paradigm for Feature Constraints in Software Product Lines. In the 2nd IEEE Working Conference on Software Visualization (VISSOFT 2014), Victoria-Canada, 29-30 September 2014.
28. Rincón-Pérez Luisa, Giraldo-Gómez Gloria-Lucía, **Mazo Raúl**, Salinesi Camille, Díaz Daniel. Método para Identificar Correcciones de Defectos en Modelos de Características que representan Líneas de Productos. In the XL Latin American Computing Conference (CLEI), IEEE Press, Montevideo-Uruguay, 15-19 September 2014.
29. Muñoz-Fernández Juán, Tamura Gabriel, **Mazo Raúl**, Salinesi Camille. Towards a Requirements Specification Multi-View Framework for Self-Adaptive Systems. In the XL Latin American Computing Conference (CLEI), IEEE Press, Montevideo-Uruguay, 15-19 September 2014.
30. **Mazo Raúl**, Giraldo-Gómez Gloria-Lucía, Jaramillo León, Salinesi Camille, Dumitrescu Cosmin. Material Needs Forecast for Product Lines, a Bayesian-based Analysis Approach. 25th International Conference on Software and Systems Engineering and their Applications (ICSSEA), Paris-France, November 2013.
31. Dumitrescu Cosmin, Tessier Patrick, Salinesi Camille, Gérard Sébastien, Dauron Alain, **Mazo Raúl**. Capturing Variability in Model-based Systems Engineering Process. Complex Systems Design & Management (CSD&M) Conference, Springer Press, Paris-France, p. 125-140, 4-6 December 2013. **Best Paper Award** (Acceptance rate 25%)
32. Dumitrescu Cosmin, **Mazo Raúl**, Salinesi Camille, Dauron Alain. Bridging the Gap Between Product Lines and Systems Engineering: An experience in Variability Management for Automotive Model-based Systems Engineering. 17th International Software Product Line Conference (SPLC), Tokio-Japan, 26-30 August, 2013.
33. **Mazo Raúl**, Salinesi Camille, Diaz Daniel. VariaMos: a Tool for Product Line Driven Systems Engineering with a Constraint Based Approach. 24th International Conference on Advanced Information Systems Engineering (CAiSE Forum'12), pp. 1-8. Gdansk-Poland, 25-29 June 2012.
34. **Mazo Raúl**, Grunbacher Paul, Heider Wolfgang, Rabiser Rick, Salinesi Camille, Diaz Daniel. Using Constraint Programming to Verify DOPLER Variability Models. 5th International Workshop on Variability Modelling of Software-intensive Systems (VaMos'11), pp. 97-103. Namur-Belgium, January 27th-29th, 2011. (Acceptation rate: 55 %, 21/38)
35. **Mazo Raúl**, Salinesi Camille, Diaz Daniel, Lora-Michiels Alberto. Transforming Attribute and Clone-Enabled Feature Models Into Constraint Programs Over Finite Domains. 6th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE), Springer Press, pp. 188-199. Beijing-China, 8-11 June 2011. (Acceptance rate 27%)

36. **Mazo Raúl**, Lopez-Herrejon Roberto, Salinesi Camille, Diaz Daniel, Egyed Alexander. Conformance Checking with Constraint Logic Programming: The Case of Feature Models. In 35th Annual International Computer Software and Applications Conference (COMPSAC), IEEE Press, pp. 456-465. Munich-Germany, 18-22 July 2011. **Best Paper Award**. (Acceptance rate 20%)
37. Salinesi Camille, **Mazo Raúl**, Djebbi Olfa, Diaz Daniel, Lora-Michiels Alberto. Constraints: the Core of Product Line Engineering. Fifth IEEE International Conference on Research Challenges in Information Science (RCIS), IEEE Press, pp. 1-10. Guadeloupe-French West Indies, France, 19-21 May 2011. **Best Paper Award**.
38. Lora-Michiels Alberto, Salinesi Camille, **Mazo Raúl**. A Method based on Association Rules to Construct Product Line Models. 4th International Workshop on Variability Modelling of Software-intensive Systems "Celebrating 20 Years of Feature Models", pp. 147-150. Linz-Austria, January 2010.
39. Salinesi Camille, **Mazo Raúl**, Diaz Daniel, Djebbi Olfa. Solving Integer Constraints in Reuse Based Requirements Engineering. 18th IEEE International Conference on Requirements Engineering (RE'10), pp. 243-251. Sydney - Australia. September-October 2010. (Acceptance rate: 15.9%)
40. Salinesi Camille, Rolland Colette, **Mazo Raúl**. VMWare: Tool Support for Automatic Verification of Structural and Semantic Correctness in Product Line Models. International Workshop on Variability Modelling of Software-intensive Systems (VaMoS), pp. 173-176. Sevilla-Spain, January 2009.

#### National conferences and workshops with PC (8)

41. Jaramillo Leon, Giraldo Gloria-Lucia, Urrego German, **Mazo Raúl**. Método para la selección de solvers para análisis automático de modelos de líneas de productos. Hacia la aplicación de la reutilización y la variabilidad en la industria del software en Colombia (memorias del primer foro REVASOFT), pp. 9–15, Cali-Colombia, ISBN 978-3-540-71436-1, May 2015
42. López Jose-Ignacio, Urrego German, **Mazo Raúl**. Proceso para configurar modelos de líneas de productos de manera incremental, interactiva y sensible al contexto. Hacia la aplicación de la reutilización y la variabilidad en la industria del software en Colombia (memorias del primer foro REVASOFT), pp. 16–22, Cali-Colombia, ISBN 978-3-540-71436-1, May 2015
43. **Mazo Raúl**, Urrego German, Quiroz Diego. Comparación de mecanismos para la implementación de componentes en líneas de productos de software. Hacia la aplicación de la reutilización y la variabilidad en la industria del software en Colombia (memorias del primer foro REVASOFT), pp. 54–60, Cali-Colombia, ISBN 978-3-540-71436-1, May 2015
44. Monsalve Sebastian, Urrego German, **Mazo Raúl**. Marco de trabajo para gestionar la corrección de defectos en la ingeniería de líneas de productos. Hacia la aplicación de la reutilización y la variabilidad en la industria del software en Colombia (memorias del primer foro REVASOFT), pp. 42–48, Cali-Colombia, ISBN 978-3-540-71436-1, May 2015
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#### **Participation in books for popularizing science (1)**

49. Association Française d'Ingénierie Systèmes (AFIS), Groupe de travail AFIS sur l'ingénierie de lignes de produits. Guide de l'Ingénierie Système d'une Ligne de Produits. Edition Cèpauḍès, Paris-France, 2012.

#### **Prototypes I developed or co-developed (3)**

1. **FM-Ware for Feature Models:** A tool support for automatic verification of cardinality based feature models. FM-Ware is a standalone tool allowing edit and verify feature models by means of graph navigating algorithms, this project has been abandoned in January 2009 and replaced by VariaMos. Copyright (C) Raúl Mazo
2. **VariaMos:** Java tool for supporting automated verification, analysis and configuration of variability models represented as high level constraint programs. Copyright (C) Raúl Mazo
3. **Conformance Checker of Feature Models.** Copyright (C) Daniel Diaz and Raúl Mazo.

All the tools are available to download at the Web site:

<https://sites.google.com/site/raulmazo/products-tools>