



Part A. PERSONAL INFORMATION

CV date	21/01/2022
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First name	Lola	
Family name	Burgueño	
Gender (*)	Female	
Web	https://som-research.uoc.edu/lburgueno/	
e-mail	lburguenoc@uoc.edu	
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-7779-8810	

(*) Mandatory

A.1. Current position

Position	Senior Researcher and Lecturer (Juan de la Cierva Incorporación)
Initial date	01/07/2020
Institution	Universitat Oberta de Catalunya (UOC)
Department/Centre	Internet Interdisciplinary Institute (IN3)
City, Country	Barcelona, Spain
Keywords	Software Engineering, Model-based software engineering

A.2. Previous positions (research activity interruptions)

Period	Position/Institution/Country/Cause of the interruption
01/10/2018-30/06/2020	Senior Researcher and Lecturer / UOC, CEA LIST / Spain, France
01/01/2017-30/09/2018	Postdoctoral Researcher / Universidad de Málaga / Spain
02/11/2017-27/11/2017	Lecturer / Marbella International University Centre / Spain
01/01/2013-31/12/2016	PhD Candidate / University of Málaga / Spain
16/11/2011-31/12/2012	Research Engineer / University of Málaga / Spain

A.3. Education

PhD, Graduate Degree	University/Country	Year
PhD in Software Engineering and Artificial Intelligence	University of Málaga / Spain	2016
MSc in Software Engineering and Artificial Intelligence	University of Málaga / Spain	2012
BSc in Computer Science	University of Málaga / Spain	2011
BSc in Technical Engineering in Computer Science	University of Málaga / Spain	2010

Part B. CV SUMMARY

Lola Burgueño obtained her PhD with honors in Computer Science from the University of Málaga in 2016. Her thesis, supervised by Prof. Vallecillo (University of Málaga) and Prof. Wimmer (Technological University of Vienna) addressed the field of Model-driven Engineering. Apart from her regular visits to Vienna, she spent 7 months in the United States as part of **two research stays**: 4 months at the University of Alabama under the supervision of Prof. Jeff Gray in 2014, and 3 months at Vanderbilt University with Prof. Gabor Karsai in 2016 as a postdoctoral researcher. In 2018, she started a two-year postdoctoral contract at UOC (Barcelona) and CEA LIST (Paris, France) fully funded by CEA LIST. Since July 2020, she is a **Juan de la Cierva Incorporación** Fellow.

Her research interests focus mainly on the field of Model-Driven Software Engineering. She has made contributions to the application of artificial intelligence techniques to improve software development processes; uncertainty management during the software design phase; model-based software testing, and the design of algorithms and tools for improving the performance of model transformations.

Her work has been of interest to the community, with papers published in the main venues (e.g., TSE, IST, SoSyM, or CAiSE), some of which have been awarded. She has been invited to deliver **keynote/talks** in international events such as the Lowcomote workshop and MSc



courses at UUIm (Germany). She has received **regular invitations** to Bellairs and Dagstuhl workshops, and funded visits to research groups (e.g., BIG research group of TU Wien). She maintains an active and continuous participation in international events, performing roles not only in their **organization**, but also as a member of its **program committees**. She has been the **PC Chair** of two international conferences and of one national track. She is also in the **Editorial Board** of the SoSyM journal and recently received the **best reviewer award** of the MODELS conference.

Some **indicators** of her research activity include:

- 15 journal papers, 13 of them indexed in JCR first or second quartiles (Q1, Q2) at the time of publication. She is the first author of 8 of them
- 8 conference papers published in top venues according to the GGS ranking: 5 in MODELS, 1 in RE, 1 in ICSSOC and 1 in CAiSE. First author of 4 of them
- 44 papers in peer-reviewed conferences, 37 international and 8 national (Spanish).
- 1 book chapter
- According to DBLP, she has 106 different co-authors.
- Her Google Scholar h-index is 15

She is currently **co-supervising** the PhD Thesis of J. Perianez (2020-). She has supervised 9 final year projects (TFM, TFG), some of them with research results that ended up being published. She has/is supervising two internships with a strong research focus: María Galvez (Jun-Dec 2021) and David Delgado (Dec 2021-July 2022), funded by UOC internal competitive call.

The **community service** activities that she has carried out include:

- PC co-chair of ECMFA'21 and SLE'22
- Chair/Organizer of 17 events (e.g., students volunteer chair of MODELS'21, publicity chair of SLE'20, workshop chair of STAF'19, Educators Symposium co-chair of MODELS'18, PhD Symposium chair of ICSSOC'17, etc.)
- She started the MDE Intelligence workshop series and has been leading it in its 2019, 2020 and 2021 editions
- Editor of the SoSyM Theme Issue "AI-enhanced Model-Driven Engineering" (2022)
- PC member in 33 peer-reviewed events, including top-ranked venues such as MODELS'21, ICSE'21 AE, SEAA'21, MODELS'20 ACM SRC, QUATIC'20, ECMFA'20, ICMT'19 and SLE'19
- Regular reviewer in indexed journals such as TSE, JSS, EMSE, SoSyM, and Computer Standard & Interfaces

She is member of the editorial board of the Software & System Modeling journal (JCR-indexed), Jan 2021-; and **regular reviewer for the Spanish State Research Agency** (Agencia Estatal de Investigación, AEI), 2021-. She has also acted as **external reviewer for NSERC** (major agency responsible for funding engineering research in Canada).

During her career, she has received the following **awards/recognitions**:

- Distinguished reviewer award (MODELS 2021)
- 2 Best paper awards (MODELS 2015 and 2018; the most relevant conference in the field of model-driven engineering)
- Recipient of the competitive Spanish post-doctoral fellowship JdC-I
- Accessit to the National Best PhD Thesis, awarded by the Spanish Society of Software Engineering (SISTEDES).
- Bronze medal at the ACM Student Research Competition at MODELS 2015
- Awarded with two competitive pre-doctoral grants (FPI and FPU) to undertake her PhD.
- Best Graduate Student Award (Premio Extraordinario Fin de Carrera), 2010.

She has taught **courses** in official BSc and MSc degrees at the University of Málaga, Marbella International University Centre (an English-speaking private university) and the Open University of Catalonia, as well as courses based on agreements with private companies such as Accenture.



Part C. RELEVANT MERITS

C.1. Publications (10 most relevant)

- 1 L. Burgueño, J. Cabot, Li, Gérard. 2021. "A Generic LSTM Neural Network to infer Heterogeneous Model Transformations". *Software & Systems Modeling*. Springer. 2021. DOI: 10.1007/s10270-021-00893-y
- 2 J. Sánchez-Cuadrado, L. Burgueño, M. Wimmer, A. Vallecillo. "Efficient execution of ATL model transformations using static analysis and parallelism". *IEEE Transactions on Software Engineering*. IEEE. 2021. DOI: 10.1109/TSE.2020.3011388
- 3 L. Burgueño, F. Cicozzi (CA), M. Famelis, et al, M. Wimmer. "Contents for a Model-Based Software Engineering Body of Knowledge". *Software & System Modeling*, 18(6): 3193-3205. Springer. 2019. DOI: 10.1007/s10270-019-00746-9. (13 authors / 1st author)
- 4 M. Bertoa, L. Burgueño, N. Moreno, A. Vallecillo. "Incorporating measurement uncertainty into OCL/UML primitive datatypes". *Software & System Modeling*, 19(5): 1163-1189 (2020). Springer. 2019. DOI: 10.1007/s10270-019-00741-0
- 5 L. Burgueño, T. Mayerhofer, M. Wimmer, A. Vallecillo. "Specifying quantities in software models Information and Software Technology". *Information and Software Technology*. 113, pp.82-97. Elsevier. 2019. DOI: 10.1016/j.infsof.2019.05.006
- 6 F. Hilken, M. Gogolla, L. Burgueño, A. Vallecillo. "Testing Models and Model Transformations using Classifying Terms". *Software & System Modeling*, 17(3), pp.885-912. Springer. 2018. DOI: 10.1007/s10270-016-0568-3
- 7 L. Burgueño, J. Boubeta, A. Vallecillo. "Formalizing Complex Event Processing Systems in Maude" *IEEE Access* 6, pp 23222-23241. 2018. DOI: 10.1109/ACCESS.2018.2831185
- 8 L. Burgueño, M. Wimmer, A. Vallecillo. "A Linda-based Platform for the Parallel Execution of Out-place Model Transformations" *Information and Software Technology* 79, pp.17-35. Elsevier. 2016. DOI: 10.1016/j.infsof.2016.06.001
- 9 L. Burgueño, J. Troya, M. Wimmer, A. Vallecillo. "Static Fault Localization in Model Transformations" *IEEE Transactions on Software Engineering*, 41(5) pp. 490-506. IEEE. 2015. DOI: 10.1109/TSE.2014.2375201
- 10 **Book chapter**. A. Vallecillo, M. Gogolla, L. Burgueño, M. Wimmer, L. Hamman. "Formal Testing of Model Transformations Formal Methods for Model-Driven Engineering". LNCS 7320, pp.399-437, Springer. 2012. ISBN: ISBN978-3-642-30981-6

C.2. Conferences (10 most relevant)

- 1 L. Burgueño, R. Clarisó, S. Gérard, S. Li, J. Cabot. "An NLP-based architecture for the autocompletion of partial domain models". Proc. of CAiSE'21, LNCS12751, pp. 91-106, Springer. Melbourne, Australia, June 2021. DOI: 10.1007/978-3-030-79382-1_6
- 2 J. Perianez-Pascual, R. Rodriguez-Echeverría, L. Burgueño, J. Cabot. "Towards the Optical Character Recognition of DSLs". Proc. of SLE'20, pp. 126-132, ACM. Chicago, USA, November 2020. DOI: 10.1145/3426425.3426937
- 3 L. Burgueño, J. Cabot, Robert Clarisó, M. Gogolla. "A Systematic Approach to Generate Diverse Instantiations for Conceptual Schemas". Proc. of ER'19, LNCS 11788, pp. 513-521, Springer. Salvador, Brazil, November 2019. DOI: 10.1007/978-3-030-33223-5_42
- 4 L. Burgueño, J. Cabot, S. Gérard. "An LSTM-Based Neural Network Architecture for Model Transformations". Proc. of MODELS'19, pp. 294-299, IEEE. Munich, Germany, September 2019. DOI: 10.1109/MODELS.2019.00013
- 5 L. Burgueño, M. Bertoa, N. Moreno, A. Vallecillo. "Expressing Confidence in Models and Model Transformation Elements". Proc. of MODELS'18, pp. 57-66, ACM. Copenhagen, Denmark, October 2018. DOI: 10.1145/3239372.3239394 (**Best Paper Award**)



- 6 G. Barquero, L. Burgueño, J. Troya, A. Vallecillo. "Extending Complex Event Processing to Graph-structured Information". Proc. of MODELS'18, pp. 166-175, ACM. Copenhagen, Denmark, October 2018. DOI: 10.1145/3239372.3239402
- 7 N. Moreno, M. F. Bertoa, G. Barquero, L. Burgueño, J. Troya, A. García-López and A. Vallecillo. "Managing Uncertain Complex Events in Web of Things Applications". Proc. of ICWE 2018, LNCS 10845, pp.349-357, Springer. Caceres, Spain, June 2018. DOI: 10.1007/978-3-319-91662-0_28
- 8 L. Burgueño, M. Gogolla. "Formally Modeling, Executing, and Testing Service-Oriented Systems with UML and OCL". Proc. of ICSOC'17, LNCS 10601, pp. 113-122. Málaga, Spain, November 2017. DOI: 10.1007/978-3-319-69035-3_8
- 9 M. Gogolla, A. Vallecillo, L. Burgueño, F. Hilken. "Employing Classifying Terms for Testing Model Transformations. International Conference on Model Driven Engineering Languages and Systems". Proc. of MODELS'15, pp. 312-321, IEEE. Ottawa, Canada, October 2015. DOI: 10.1109/MODELS.2015.7338262 (**Best Paper Award**)
- 10 Manuel Wimmer, L. Burgueño. "Testing M2T/T2M Transformations". Proc. of MODELS'13, LNCS 8107, pp. 213-219, Springer. Miami, USA, September 2013. DOI: 10.1007/978-3-642-41533-3_13

C.3. Research projects

- 1 LOCOS: Low-code development of smart software (PID2020-114615RB-I00). MICINN. 01/09/2021-31/08/2024. 56.870 €. PI: R. Clarisó and J. Cabot (Universitat Oberta de Catalunya). Research Team, leader of two work packages.
- 2 Development of Software Assistants with AI Capabilities. Universitat Oberta de Catalunya. 01/09/2021-30/06/2022. 4.500 €. PI: **L. Burgueño**.
- 3 ODA: Open data para todos: Una infraestructura basada en APIs para la explotación de fuentes de datos online. MINECO (TIN2016-75944-R). 01/04/2017-30/06/2021. 117.906€. PI: J. Cabot (Universitat Oberta de Catalunya). Research Team.
- 4 MPM4CPS: Multi-Paradigm Modelling for Cyber-Physical Systems. EU COST Action number IC1404. 25/11/2014- 24/11/2018. 76.000.000 €. PI: Hans Vangheluwe (University of Antwerp & McGill University). Research Team.
- 5 POLYCIMS: Un Marco dirigido por modelos para el diseño e integración de Sistemas Inalámbricos de Gestión de Infraestructuras Críticas (TIN2014-52034-R). 26/05/2015-26/05/2018. 179.300 €. PI: Antonio Vallecillo (University of Málaga). Research Team.
- 6 Red Temática en Ingeniería del Software Dirigida por Modelos. MINISTERIO DE EDUCACION Y CIENCIA. Robert Clarisó Viladrosa. 01/07/2017-30/06/2019. 15.000 €.
- 7 WIMACS: Sistemas Inalámbricos de Gestión de Información Crítica. MICINN (TIN2011-23795). 01/01/2012- 31/12/2014. 129.228 €. PI: Manuel Díaz (University of Málaga). PhD Candidate (FPI).
- 8 Red Científico-Tecnológica en Ciencias de los Servicios. Ministerio de Economía y Competitividad (TIN2011-15497-E). Rubén Fuentes Fernández. 01/09/2012-24/06/2014. 18.000 €. Research Team
- 9 MDD-MERTS: Diseño y Monitorización Dirigido por Modelos de Sistemas Empotrados y de Tiempo Real, MICINN (TIN2008-03107). 01/01/2009-30/06/2012. 268.620 €. PI: A. Vallecillo (University of Málaga). Research Team.

C.4. Technology/Knowledge transfer

- 1 **Contract**. Model-IA: The beginnings of cognified MDE Platform. CEA LIST (Ref. S32228). 01/10/2018-01/07/2020. 100.000 €.