CURRÍCULUM ABREVIADO (CVA) – Extensión máxima: 4 PÁGINAS
Lea detenidamente las instrucciones disponibles en la web de la convocatoria.

CVA Date	09/05/2021

Part A. PERSONAL DATA

Name	DANIEL LIMÓN MARRUEDO		
DNI	28732955K	Age	49
Researcher Identification	Researcher ID	L-2798-2014	
	Orcid iD	0000-0001-9334-7289	

A.1. Current position

Name of University	Universidad de Sevilla			
Department	Ingeniería de Sistemas y Automática			
Address and Country	Sevilla, Andalucía, España			
Phone number	954487488	Email	dlm@us.es	
Current position	Catedrático de Universidad		Fecha inicio	10-11-2017
Key words	Model Predictive Control. Learning based control.			

A.2. Education

Graduate	University	Year
PhD on Automatics and Electronics	Universidad de Sevilla	2002
Degree in Electric Engineering	Universidad de Sevilla	1996

A.3. Quality indexes of the research publications

Index	Value
H index (Scopus)	26
Thesis supervised in the last 10 years	4
Number of citations	2065
H index (WoS)	23
Research evaluations (sexenios)	3
Average citation per paper	23
Number of journal papers in the last 10 years	27

Part B. FREE SUMARY OF THE CVA

Daniel Limón is an Electrical Engineering PhD and Full Professor in the Systems Engineering and Automation department of the Univsersity of Seville since 2017. He has 3 research periods (sexenios) and 1 transfer period. Since 2013 he is the head of the research group Estimation, Prediction, Optimzation and Control (GEPOC- TEP950).

He is author in 49 indexed journal publications (70% of them in Q1), more than 10 book chapters and more than 90 contributions to national and international congresses. He has an H index of 23 (WOS), 26 (Scopus) and 35 (Google Scholar) and his total number of citations are 2065 (WOS), 2771 (Scopus) and 4700 (Google Scholar).

He has been a Plenary Speeker in the international conference NMPC08 in 2008, and an organizer of the 5th IFAC conference on Nonlinear Model Predictive Control (NMPC15), Seville, 2015. Additionally, he has been invited to give lectures in international universities like Cambridge, EPFL, Stuttgart, Magdeburgo, Leicester or Sao Paulo, and national universities like Madrid or San Sebastián.

He has performed research visits with durations of several months in the Pennsylvania State University (PennState) (EEUU), the university of Cambridge (UK) and in Mitsubishi Electric Research Labs (EEUU).

He is an associate editor of the Optimal Control Methods and Application (Wiley) journal since 2015.

He has been principal investigator of 2 coordinated projects of the Plan Nacional. He has been responsible for 2 contracts with the company Mitsubishi Electric Research Labs and participated in 7contracts with businesses, such as EMASESA, Elecnor and Ontech.

https://bibliometria.us.es/prisma/investigador/2196

Part C. MOST RELEVANT MERITS

C.1. Publications

Journal Publication. Manzano, J.M.; Muñoz De La Peña-Sequedo, David; Calliess, Jan Peter; Limón-Marruedo, Daniel. 2021. Componentwise Hölder inference for robust learning-based MPC. IEEE Transactions on Automatic Control.

Journal Publication. Krupa, Pablo; Limón-Marruedo, Daniel; Alamo-Cantarero, Teodoro. 2020. Implementation of Model Predictive Control in Programmable Logic Controllers. IEEE Transactions on Control Systems Technology. Early, pp. 1-14.

Journal Publication. Manzano, J.M.; Limón-Marruedo, Daniel; Muñoz De La Peña-Sequedo, David; Calliess, Jan. 2020. Robust learning-based MPC for nonlinear constrained systems. Automatica. 117, pp. 1-7.

Journal Publication. Manzano, J.M.; Muñoz De La Peña-Sequedo, David; Calliess, Jan; Limón-Marruedo, Daniel. 2020. Online learning constrained model predictive control based on double prediction. International Journal of Robust and Nonlinear Control. 30, pp. 1-17.

Journal Publication. Manzano, J.M.; Limón-Marruedo, Daniel; Muñoz De La Peña-Sequedo, David; Calliess, Jan Peter. 2019. Output Feedback MPC based on Smoothed Projected Kinky Inference. IET Control Theory and Applications. 13, pp. 795-805.

Journal Publication. Hosseinzadeh, Mehdi; Cotorruelo, Andrés; Limón-Marruedo, Daniel; Garone, Emanuele. 2019. Constrained Control of Linear Systems Subject to Combinations of Intersections and Unions of Concave Constraints. IEEE Control Systems Letters. 3, pp. 571-576.

Journal Publication. Limón-Marruedo, Daniel; Ferramosca-, Antonio; Alvarado-Aldea, Ignacio; Alamo-Cantarero, Teodoro. 2018. Nonlinear MPC for Tracking Piece-Wise Constant Reference Signals. IEEE Transactions on Automatic Control. 63, pp. 3735-3750.

Journal Publication. Muñoz De La Peña-Sequedo, David; Limón-Marruedo, Daniel; Pereira-Martín , Mario . 2017. Robust economic model predictive control of a community micro-grid. Renewable Energy. 100, pp. 3-17.

Journal Publication. Pereira-Martín , Mario ; Muñoz De La Peña-Sequedo, David; Limón-Marruedo, Daniel; Alvarado-Aldea, Ignacio; Alamo-Cantarero, Teodoro. 2017. Robust Model Predictive Controller for Tracking Changing Periodic Signals. IEEE Transactions on Automatic Control. 62, pp. 5343-5450.

Journal Publication. Ferramosca-, Antonio; González, Alejandro H.; Limón-Marruedo, Daniel. 2017. Offset-free multi-model economic model predictive control for changing economic criterion. Journal of Process Control. 54, pp. 1-13.

Journal Publication. Lopes De Lima, Marcelo; Limón-Marruedo, Daniel; Muñoz De La Peña-Sequedo, David; Camponogara, Eduardo. 2016. Distributed Satisficing MPC with Guarantee of Stability. IEEE Transactions on Automatic Control. 61, pp. 532-537.

Journal Publication. Limón-Marruedo, Daniel; Pereira-Martín , Mario ; Muñoz De La Peña-Sequedo, David; Alamo-Cantarero, Teodoro; Jones, Colin N; Zeilinger, Melanie N. 2016. MPC for tracking periodic references. IEEE Transactions on Automatic Control. 61, pp. 1123-1128.

Journal Publication. Pereira-Martín , Mario ; Limón-Marruedo, Daniel; Muñoz De La Peña-Sequedo, David; Alamo-Cantarero, Teodoro. 2015. Periodic Economic Control of a Nonisolated Microgrid. IEEE Transactions on Industrial Electronics. 62, pp. 5247 -5255.

Journal Publication. Lopes-de Lima, Marcelo; Camponogara, Eduardo; Limón-Marruedo, Daniel; Muñoz De La Peña-Sequedo, David. 2015. Distributed Satisficing MPC. IEEE Transactions on Control Systems Technology. 23, pp. 305-312.

Journal Publication. Gruber-, Jorn Klaas; Rodríguez-Ramírez, Daniel; Limón-Marruedo, Daniel; Alamo-Cantarero, Teodoro. 2015. A convex approach for NMPC based on second order Volterra series models. International Journal of Robust and Nonlinear Control. 25, pp. 3546-3571.

Journal Publication. Ferramosca-, Antonio; Limón-Marruedo, Daniel; Fernández-Camacho, Eduardo. 2014. Economic MPC for a Changing Economic Criterion for Linear Systems. IEEE Transactions on Automatic Control. 59, pp. 2657-2667.

Journal Publication. Limón-Marruedo, Daniel; Pereira-martin, Mario; Muñoz De La Peña-Sequedo, David; Alamo-Cantarero, Teodoro; Grosso, J. M.. 2014. Single-layer economic model predictive control for periodic operation. Journal of Process Control. 24, pp. 1207-1224.

Journal Publication. Alamo-Cantarero, Teodoro; Ferramosca-, Antonio; H. González, Alejandro; Limón-Marruedo, Daniel; Odloak, Darci. 2014. A gradient-based strategy for the one-layer RTO + MPC control. Journal of Process Control. 24, pp. 435-447.

Journal Publication. Ferramosca-, Antonio; González, Alejandro Hernán; Limón-Marruedo, Daniel; Bustos, G.a.; Godoy, J.l.; Marchetti, Jacinto L.. 2014. On Economic Optimality of Model Predictive Control. Revista IEEE America Latina. 12, pp. 1234-1241.

Journal Publication. Ferramosca-, Antonio; Limón-Marruedo, Daniel; Alvarado-Aldea, Ignacio; Fernández-Camacho, Eduardo. 2013. Cooperative distributed MPC for tracking.. Automatica. 49, pp. 906-914.

Journal Publication. Gruber-, Jorn Klaas; Rodríguez-Ramírez, Daniel; Limón-Marruedo, Daniel; Alamo-Cantarero, Teodoro. 2013. Computationally efficient nonlinear Min-Max Model Predictive Control based on Volterra series models. Application to a pilot plant. Journal of Process Control. 23, pp. 543-560.

Journal Publication. Ferramosca-, Antonio; Gruber-, Jorn Klaas; Limón-Marruedo, Daniel; Fernández-Camacho, Eduardo. 2013. Control predictivo para Seguimiento de Sistemas no lineales. Aplicación a una planta piloto.. Revista Iberoamericana de Automática e Informática Industrial. 10, pp. 18-29.

Journal Publication. Ferramosca-, Antonio; Limón-Marruedo, Daniel; Hernán-gonzález, Alejandro ; Alvarado-Aldea, Ignacio; Fernández-Camacho, Eduardo. 2012. Robust MPC for tracking zone regions based on nominal predictions. . Journal of Process Control. 22, pp. 1966-1974.

Journal Publication. Santos, Tito M.l.; Limón-Marruedo, Daniel; Normey-Rico, Julio E.; Alamo-Cantarero, Teodoro. 2012. On the explicit dead-time compensation for robust model predictive control. Journal of Process Control. 22, pp. 236-246.

Journal Publication. Alvarado-Aldea, Ignacio; Limón-Marruedo, Daniel; Muñoz De La Peña-Sequedo, David; Maestre-Torreblanca, José; Ridao-Carlini, Miguel Angel; Sheu-,H.; Marquardt-,W.; Negenborn-,R.R.; De Schutter-,B.; Valencia-,F.; Espinosa-,J.. 2011. A COMPARATIVE ANALYSIS OF DISTRIBUTED MPC TECHNIQUES APPLIED TO THE HD-MPC FOUR-TANK BENCHMARK.. Journal of Process Control. 21, pp. 800-815.

Journal Publication. Ferramosca-, Antonio; Limón-Marruedo, Daniel; Alvarado-Aldea, Ignacio; Alamo-Cantarero, Teodoro; Castaño-Castaño, Luis Fernando; Fernández-Camacho,

Eduardo. 2011. Optimal MPC for tracking of constrained linear systems.. International Journal of Systems Science. 42, pp. 1265-1276.

C.2. Projects

PID2019-106212RB-C41. Operación Sergura de Infraestructuras Estratégicas Basada en Optimización con Restricciones Probabilísticas y Aprendizaje. Ministerio de Ciencia Innovación y Universidades. Ramirez, D.R. 2020-2022. 170500 EUR.

DPI2016-76493-C3-1-R. Operación Económica Basada en Datos de Sistemas Cyber-Físicos Ministerio de Economía y Competitividad. 2016-2019. 169930 EUR.

DPI2013-48243-C2-2-R. Estimación y Optimización Dinámica de la Eficiencia en Infraestructuras Críticas. Ministerio De Economía Y Competitividad. Limón, Daniel 2014-2017. 95590 EUR.

C.3. Contracts, technological merits and transference merits

Diseño y desarrollo en un dispositivo SoC (System on Chip) con integración en silicio de tecnología de Campos Magnéticos. Ontech Security SL. David Muñoz de la Peña. 2019-2021. 70000 EUR.

Development of model based and data driven predictive control algorithms for tracking for multi-zone hvac systems. Mitsubishi electric research laboratories, inc..Limón, Daniel 2018-2018. 16710 EUR.

Model-based and Data-driven Predictive Control Algorithms for Tracking *. MITSUBISHI ELECTRIC RESEARCH LABORATORIES, INC.. Responsable: Limón Daniel 2017-2019. 25096 EUR.

ECOWAMER. Monitorización de Fugas, Consumos y Fraude en Redes de Abastecimiento de Agua *. Empresa Municipal de Abastecimiento y Saneamiento de Aguas de Sevilla (EMASESA). Alamo, Teodoro 2015-2016. 85000 EUR.

PLATER: Plataforma Integral de Energías Renovables *. Elecnor S.A.. Ramirez, D.R.. 2014-2015. 18000 EUR.

Medida Coherente de Caudal *. Empresa Municipal de Abastecimiento y Saneamiento de Aguas de Sevilla (EMASESA). Alamo, Teodoro. 2013-2013. 45000 EUR.

Plan óptimo de Muestreo *. Landis & Gyr, S.A.U. Alamo, 2013-2013. 2000 EUR.

Desarrollo de un sensor de concentración de cloruro de calcio *. Pimientos en Pasta S.L. Alvarado, Ignacio. 2013-2013. 500 EUR.

C.4. PhD thesis

1. Model Predictive Control of Systems With Changing Setpoints. Antonio Ferramosca. 2011.
2. Distributed satisficing MPC. Marcelo Lima. 2013
3. Contribución al control económico con criterios cambiantes. Mario Pereira Martín. 2016
4. Learning-based model predictive control for constrained nonlinear systems. J.M. Manzano Crespo. 2020

C.5. Spin-off

Founder of Optimal Performance S.L. in2013.