Manel Martínez-Ramón
Department of Electrical and Computer Engineering
The University of New Mexico
1 University of New Mexico, Albuquerque, NM 87131-0001
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Professional Preparation

Universitat Politècnica de Catalunya	Barcelona, Spain	Telecomm. Engineer	MsD, 1996
Universidad Carlos III de Madrid	Leganes, Madrid, Spain	Telecomm.	PhD, 1999
MIND Imaging Center, UNM	Albuquerque, NM	Neuroimaging	Postdoc 2004-2005

Appointments

08/2013-today	Professor, King Felipe VI Endowed Chair, Elect. and Computer dept. The University of New Mexico
2011-2012	Assistant vice-chancelor for infrastructures and environment, Universidad Carlos III de Madrid.
2010-2011	Associate dean of the Politecnic School of Universidad Carlos III de Madrid, director of teaching management, director of several degrees in telecommunications engineering.
12/2009-08/2013	Associate professor (tenured), Dept. of Signal Theory and Communications, Universidad Carlos III de Madrid
01/2004-12/2009	Associate Professor (not tenured), DTSC, Universidad Carlos III de Madrid
01/2004-09/2005	Research assistant, Posdoc, ECE and The MIND Institute, The University of New Mexico
09/2002-01/2004	Visitor Lecturer, DTSC, Universidad Carlos III de Madrid
07/2002-09/2002	Associate professor (N.T), DTSC, Universidad de Alcalá
10/2001-07/2002	Associate professor (N.T), DTSC, Univ. Politécnica de Cartagena
10/2000-10/2001	Assist. Professor (cat. II), DTSC, Universidad Carlos III
10/1996-10/2000	Assist. professor (cat. I), DTSC, Universidad Carlos III
10/1994-10/1996	Research coordinator, IT expert. Ministery of Education and Science

LANGUAGES (R= AVERAGE, B= good, C= Correct)

Language	*speaking*	*reading*	*writing*
English	B	C	C
French	R	B	R
Spanish (Native)	C	C	C
Catalan (Native)	C	C	C

RESEARCH GRANTS
Participation in public competitive calls.

1- TIC96-0500-c10-03, "Aplicación de Algoritmos Basados en Procesos Naturales a la Predicción, la Decisión y la Comunicación"
Agency: CICYT
From: 01.09.1996 to: 30.09.1999
P.I.: Aníbal R. Figueiras Vidal
Funds: 8.000.000 pta

2 - TIC97-1082-e Tratamiento inteligente de la información.
Agency: CICYT
From 21.05.97. to 21.05.98
P.I.: Aníbal R. Figueiras-Vidal

3 - TIC99-0216, “Nuevos Métodos de Selección y Reducción para el Diseño de Algoritmos Neuronales: Aplicaciones a Señales y Datos”
Agency: CICYT
From: 01.11.1999 to: 30.11.2001
P.I.: Aníbal R. Figueiras Vidal
Funds: 11.400.000 pta

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4 - Segmentación, Clasificación e Indexado de Registros Multimedia a partir de Audio y Texto
Agency: Comunidad Autónoma de Madrid
From: 01.01.2001 to: 31.12.2003
P.I.: Fernando Díaz de María
Funds: 8.885.000 pta

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5 - 2FD97-1066-C02-02, “Desarrollo de WLAN basada en técnicas de espectro ensanchado y multiportadora”
Agency: CICYT-FEDER
From: 01.10.1999 to: 31.12.2001
P.I.: Fernando Díaz de María
Funds: 1108.994 €

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6 - TIC2001-0751-C04-02, “Plataforma Hardware-software para el desarrollo de interfaces radio CDMA”
Agency: CICYT
From: 28.12.2001 to: 27.12.2004
P.I.: Ángel María Bravo Santos
Funds: 68.773,82 €

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7 - FleximaTV: Flexible and Intelligent (s)MATV systems
Agency: Comisión Europea (Quinto programa Marco de I+D)
Duración: desde 1.9.2002 to 31.06.2003
P.I.: Javier Ramos López

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8 - Acción Integrada Hispano-Portuguesa 2002-2003
Agency: Ministerio de Ciencia y Tecnología. DG de Investigación.
Fom: 1.1.2002 to 31.12.2003
P.I.: Javier Ramos López

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9 - TIC2003-2602 Detección de objetos en imágenes infrarrojas para aplicaciones de seguridad
Agency: Ministerio de Ciencia y Tecnología. DG de Investigación.
P.I.: Antonio Artés Rodríguez

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10 - NIH Grant NIBIB 1 RO1 EB002618-01,
P.I.: Stefan Posse, Dept. of Psychiatry and the MIND Institute, University of New Mexico, 2004.

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11 - TEC2005-00992, “Nuevos Métodos Neuronales Dirigidos a Tratamiento de Señales y Datos”
Agency: Ministerio de Educación y Ciencia. DG de Investigación.
P.I.: Aníbal R. Figueiras Vidal
From: 31.12.2005 to 30.12.2008

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12 - S-505/TIC/0223, "Procesamiento Multimedia Distribuido"
Agency: Dirección General de Universidades e investigación, Comunidad de Madrid
PI: Aníbal R. Figueiras Vidal
From: 01/01/06 to 31/12/09
Funds: 187.520'47 €

13- TEC2008-02473- Aprendizaje Automático Avanzado para Procesado de Señal y Datos
Agency: Ministerio de Educación y Ciencia. DG de Investigación.
P.I.: Ángel Navia Vázquez
Funds: 160.000 €

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14 Adaptatividad e Integración de Decisiones con Pesos Funcionales
Agency: MICINN (TIN2011-24533).
P.I.: Aníbal Ramón Figueiras García
From 01/01/2012 to 31/12/2014
Funds: 83.611 €

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15 - PRICAM-CM. Programa redes electricas inteligentes en la
Comunidad de madrid
Entidad financiador: CAM-Consejería de educación. Dirección general de Universidades e Investigación.
P.I.: Manel Martínez Ramón
From 01.10.2014 to 01.10.2018
Funds: 114.265 €

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16 -Cognitive Radio Small Cell for Pervasive Coverage and Sustained Data rates in Mobile Applications (Phase 1)

Agency: National Science Foundation
P.I.: Manel Martínez Ramón
From 1/7/2015 to 12/31/2015
Funds: $26.950

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17 - Validation of Measures to expand applications of Micro-grid control system
Agency: Mitsubishi Reearch Institute
co-P.I.: Manel Martínez Ramón (P.I. Andrea Alberto Mammoli, CEET-UNM)
From 5/10/2015 to 4/9/2017
Funds: $281.362, phase I, $750.000 phase II

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18 - A Wideband Autonomous Cognitive Radio Development and Prototyping System
Agency: Department of defense, EE.UU
P.I.: Manuel Martínez-Ramón (Proyecto coordinado, Investigador Líder: S. A. Jayaweera, UNM)
From 15/8/2016 to 14/8/2017
Funds: $480,361.00

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19 - Cognitive radio small cell for pervasive coverage (Phase II)
Agency: National Science Foundation
Invetigador Principal: Manuel Martínez-Ramón
Periodo de Funds: 1/9/2016 to 31/8/2018
Funds: $170.750

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20 - Next Generation Connected and Smart Cyber Fire Fighter System
Agency: National Science Foundation
P.I.: Manuel Martínez-Ramón
From: 1/7/2016 to 30/6/2019
Funds: $199.920

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21 - Adaptive protection and control for high penetration PV and grid resilience
Agency: Sandia National Laboratories
P.I.: Ali Bidram
Co-IP: Manel Martínez-Ramón
From 26/5/2020 to 08/03/2021
Funds: $ 358.108

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22 - Data-Science Enabled, Robust and Rapid MeV Ultrafast Electron Diffraction Instrument System to Characterize Materials Including for Quantum and Energy Applications
Agency: Department of Energy
P.I.: Sandra Biedrom
Co-PI: Manel Martínez-Ramón
From 09/22/2020 to 09/01/2020
Funds: $249,999.00

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22 – EPSCOR SMART
Agency: NSF
P.I.: William Michener
From 09/22/2018 to 09/01/2023
Funds: $24.000.000. Personal share $500.00

23-Project Title: Adaptive protection and control for high penetration PV and grid resilience
Department of Energy, $1,455,662.00, Start/End Dates: 03/01/2020- 02/28/2023
PI: Ali Bidram. Co-PI: Manel Martínez Ramón
Location of Project: The University of New Mexico

24-Project Title: Data-Science Enabled, Robust and Rapid MeV Ultrafast Electron Diffraction Instrument System to Characterize Materials Including for Quantum and Energy Applications
Department of Energy, EPSCoR. $750.001
PI: Sandra Biedrom. Co-PI: Manel Martínez Ramón
Location of Project: The University of New Mexico

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25. Project Title: Customized reinforcement learning solutions for quantum technologies
National Technology & Engineering Solutions of Sandia, LCC. $558,124
PI: Manel Martínez Ramón
10/1/2024-09/30/2027
Location of Project: The University of New Mexico

26. Project Title: Predicting individual responses to treatment for alcohol use disorder
National Institutes of Health, $3.055.368
05/30/2023-05/30/2026
PI: Lee Van Horn
Co-PI: Manel Martinez-Ramón, Katie A Witkiewitz

PUBLICATIONS

Books (author)

1. M. Martínez-Ramón, C. Christodoulou, Support Vector Machines for Antenna Array Processing and Electromagnetics, Morgan & Claypool Publishers, CO, USA, 2006. ISBN: 1-5982-902-4-X
2. José Luis Rojo–Álvarez, Manel Martínez-Ramón, Jordi Muñoz-Marí, Gustau Camps-Valls, Digital Signal Processing with Kernel Methods, John Wiley and Sons. 2018. ISBN: 9-781118611791
3. Manel Martínez-Ramón, Arjun Gupta, José Luis Rojo-Álvarez, Christos Christodoulou, Machine Learning Applications in Electromagnetics and Antenna Array Processing, Artech House, 2021. ISBN: 9781630817756
4. Manel Martínez-Ramón, Meenu Ajith, Aswathy Rajendra Kurup, Deep Learning: a practical introduction, Wiley, 2024

Books (editor)

1. G. Camps-Valls, J. L. Rojo-Álvarez and M. Martínez-Ramón (Eds.), Kernel Methods in Bioengineering, Communications and Image Processing", Idea Group, Inc. Hershey, PA. USA 2006. ISBN: 1-5990-404-2-5.shirin
2. E. Hines, M. Leeson, M. Martínez-Ramón, Matteo Pardo, Eduard Llobet, Daciana Iliescu, Jianhua Yang (Eds), *"Intelligent Systems: Techniques and Applications"*, Shaker Verlag, Maastrich, NL, 2008, ISBN: 978-90-423-0345-4.

Book chapters

1. M. Martínez-Ramón, V. Koltchinskii, G. Heileman, S. Posse, "Classification of Multiple Interleaved Human Brain Tasks in functional Magnetic Resonance Imaging", in Kernel methods in bioengineering, communications and image processing, G. Camps-Valls, J. L. Rojo-Álvarez, M. Martínez-Ramon, eds. Idea Group, Inc. Hershey, PA. USA 2006. ISBN: 1-5990-404-2-5.
2. C. Christodoulou, M. Martínez-Ramón, "Comparison of Kernel Method for Smart Antenna Array Processing", in Kernel methods in bioengineering, communications and image processing, G. Camps-Valls, J. L. Rojo-Álvarez, M. Martínez-Ramon, eds. Idea Group, Inc. Hershey, PA. USA 2006. ISBN: 1-5990-404-2-5.
3. G. Camps-Valls, J. L. Rojo-Álvarez, M. Martínez-Ramón, "Time series processing framework with Support Vector Machines", in Kernel methods in bioengineering, communications and image processing, G. Camps-Valls, J. L. Rojo-Álvarez, M. Martínez-Ramon, eds. Idea Group, Inc. Hershey, PA. USA 2006. ISBN: 1-5990-404-2-5.
4. G. Camps-Valls, J. L. Rojo-Álvarez, M. Martínez-Ramón, "An Introduction to Kernel Methods", in Encyclopaedia of Data Warehousing and Mining, John Wang, ed. Idea Group, 2007.
5. G. Camps-Valls, J. L. Rojo-Álvarez, M. Martínez-Ramón, "Kernel Methods: A Survey of Applications", in Encyclopaedia of Data Warehousing and Mining, John Wang, ed. Idea Group, 2007.
6. M. Martínez-Ramón, N. Xu, C. G. Christodoulou, "Antenna Array processing for Radar Applications Using Support Vector Machines", In Ultra Wideband, Short Pulse Electromagnetics, C. Baum et alli, editors. Springer, ,pp. 143-151, 2007.
7. M. Martínez-Ramón, A. Navia-Vazquez, R. Jordán, C. G Christodoulou, "Kernel Methods for Smart Antennas", In Intelligent Systems, Techniques and Applications, Shaker Verlag, Germany, 2008.
8. J. Muñoz-Marí, L. Gómez-Chova, M. Martínez-Ramón, J. L. Rojo-Álvarez, J. Calpe-Maravilla, G. Camps-Valls, "Multi-temporal image classification with kernels", in Kernel Methods for Remote Sensing Data Analysis, G. Camps-Valls, L. Bruzzone, editors, Wiley.
9. M. Martínez-Ramón, V. Koltchinskii, G. Heileman, S. Posse, "Classification of Multiple Interleaved Human Brain Tasks in functional Magnetic Resonance Imaging", in Intelligent Information Technologies: Concepts,

Methodologies, Tools and Applications, Vijayan Sugumaran, ed. Idea Group, Inc. Hershey, PA. USA 2008. ISBN: 978-1-59904-941-0

10. Manel Martínez-Ramón, José Luis Rojo-Álvarez, Arjun Gupta, Christos Christodoulou, "Analysis of Uniform and Non-Uniform Antenna Arrays Using Kernel Method", in Advances in Electromagnetics Empowered by Artificial Intelligence and Deep Learning, IEEE-Wiley, 2023, pp.385-407, ISBN: 9781119853893
11. Vijayamohanan, Jayakrishnan, et al. "Signal Detection with Machine Learning." Artificial Intelligence for Future Networks (2025): 51-91.

Papers in peer reviewed international journals

1. A. Lyhyaoui, M. Martínez-Ramón, I. Mora-Giménez, M. Vázquez-Castro, J. L. Sancho-Gómez, A. R. Figueiras-Vidal "Sample Selection Via Clustering to Construct Support Vector-like Clasifiers", *IEEE Transactions on Neural Networks*, Vol 10, No 6, Nov. 1999, pp. 1474-1481.
2. J. L. Rojo Álvarez, M. Martínez-Ramón, A. R. Figueiras-Vidal, A. García-Armada, A. Artés-Rodríguez, "A robust Support Vector Method for Non-parametric Spectral Analysis", *IEEE Signal Processing Letters*, Vol. 10, Nº 11, Nov. 2003, pp. 320-323.
3. J. L. Rojo Álvarez, M. Martínez-Ramón, M. De Prado-Cumplido, A. Artés-Rodríguez, A. R. Figueiras-Vidal, "Support Vector Method for ARMA System Identification", *IEEE Trans. on Signal Processing*, Vol. 52, Nº 1, Jan. 2004, pp. 155-164.
4. M. Martínez-Ramón, A. Artés-Rodriguez, A. Navia-Vazquez, A. R. Figueiras-Vidal, "Adaptively Combined LMS and Logistic Equalizers", *IEEE Signal Processing Letters*, Vol. 11, No. 10, Oct. 2004, pp. 777-779.
5. G. Camps-Valls, M. Martínez-Ramón, J. L. Rojo-Álvarez, E. Soria-Arribas, "Robust -filter Using the Support Vector Method", *Neurocomputing*, Elsevier, Vol 62C, Dec, 2004, pp. 493-499.
6. J. L. Rojo-Álvarez, G. Camps-Valls, M. Martínez-Ramón, A. Navia-Vazquez, A. R. Figueiras-Vidal, E. Soria-Arribas, "Support Vector Machines Framework for Linear Signal Processing", *Signal Processing*, Vol 85, Nº 12, pp. 2316-2326, 2005.
7. M. Martinez Ramón, N. Xu, C. Christodoulou, "Beamforming Using Support Vector Machines", *IEEE Antenas and Wireless Propagation Letters*, Vol. 4, pp. 439-442, Dec. 2005.
8. M. J. Fernández-Getino-García, J. L. Rojo-Álvarez, F. Alonso-Atienza, M. Martínez-Ramón, "Support vector machines for robust channel estimation in OFDM", *IEEE Signal Processing Letters*, Vol. 13, No 7, pp. 397 - 400, July 2006.
9. M. Martínez-Ramón, V. Koltchinskii, G. L. Heileman, S. Posse, "fMRI Pattern Classification using Neuroanatomically Constrained Boosting", *Neuroimage*, Vol. 31, No 3, pp. 1129-1141, July 2006.
10. J. Arenas-García, M. Martínez-Ramón, Á. Navia-Vazquez and A. R. Figueiras-Vidal, "Plant identification via adaptive combination of transversal filters", *Signal Processing,* Vol. 86, No 9, pp. 2430-2438, Sep. 2006.
11. M. Martínez Ramón, J. L. Rojo-Álvarez, G. Camps-Valls, J. Muñoz-Marí, A. Navia-Vazquez, E. Soria-Olivas, A. Figueiras-Vidal, "Support Vector Machines for Nonlinear Kernel ARMA System Identification", *IEEE Transactions on Neural Networks*, Vol 17, No 6, pp. 1617-1622, Nov. 2006.
12. G. Camps-Valls, M. Martínez-Ramón, J. Luis Rojo-Álvarez and J. Muñoz-Marí, "Non-linear System Identification with Composite Relevance Vector Machines", *IEEE Signal Processing Letters*, Vol. 14, No 4, pp. 279-282, April, 2007.
13. M. Martínez-Ramón, J. L. Rojo-Álvarez, G. Camps-Valls, C. G. Christodoulou, "Kernel Antenna Array Processing", IEEE Transactions on Antennas and Propagation, Special Issue on Synthesis and Optimization Techniques in Electromagnetics and Antenna System Design, Vol. 55, Nº 3, pp. 642-650, March 2007.
14. J. L. Rojo-Álvarez, C. Figuera, C.E. Martínez-Cruz, G. Camps-Valls, F. Alonso-Atienza, M. Martínez-Ramón, "Nonuniform Interpolation of Noisy Signals using Support Vector Machines", *IEEE Transactions on Signal Processing,* Vol. 55, No 8, pp. 4116-4126, August, 2007.
15. G. Camps-Valls, L. Gómez-Chova, J. Muñoz-Marí, J. L. Rojo-Álvarez, M. Martínez-Ramón, " Kernel-Based Framework for Multitemporal and Multisource Remote Sensing Data Classification and Change Detection ", IEEE Transactions on Geosicience and Remote Sensing. Vol. 46, No. 6, pp. 1822-1835, June 2008.
16. J. L. Rojo-Álvarez, M. Martínez-Ramón, J. Muñoz-Marí, G. Camps-Valls, C. M. Cruz, and A. R. Figueiras-Vidal, "Sparse Deconvolution Using Support Vector Machines", *Journal of Advances in Signal Processing*, Special Issue on Emerging Machine Learning Techniques in Signal Processing, Vol. 2008.
17. G. Camps-Valls, J. Muñoz-Marí, M. Martínez-Ramón, J. Requena-Carrión, J. L. Rojo-Álvarez, "Learning Non-linear Time-scales with Kernel γ –Filters", *Neurocomputing*, Vol. 72, Issues 4-6, Jan. 2009, Pages 1324-1328.
18. M. Martínez-Ramón, A. Gallardo-Antolín, J. Cid-Sueiro, G. L. Heileman, K-T. Yung, W. Zheng, C. Zhao, S. Posse, "Automatic Placement of Outer Volume Suppression Slices in MR Spectroscopic Imaging of the Human Brain", *Magnetic Resonance in Medicine*, Vol. 63, No 3, pp. 592-600, Feb. 2010.

19. A. Navia-Vázquez, M. Martínez-Ramón, L. E. García-Muñoz, C. G. Christodoulou, “Approximate Kernel Orthogonalization for Antenna Array Processing”, *IEEE Transactions on Antennas and Propagation*, Vol. 58. No 12, pp. 3942-3950, Dec. 2010.
20. K. T. Yung, W. Zheng C. Zhao, A. van der Kouwe, M. Martínez-Ramón, S. Posse, Atlas-Based Automated Positioning of Outer Volume Suppression Slices in Short-TE 3D MR Spectroscopic Imaging of the Human Brain, *Magnetic Resonance in Medicine*, vol. 66, 2011.
21. V. Gómez-Verdejo, M. Martínez-Ramón, J. Arenas-García, M. Lázaro-Gredilla, H. Molina-Bulla, “Support Vector Machines with Constraints for Sparsity in the Primal Parameters”, *IEEE Transactions on Neural Networks*, Vol. 220, No. 8, pp. 1269-1283, Aug. 2011.
22. E. Castro, M. Martínez-Ramón, G. Pearlson, J. Sui, V. D. Calhoun, “Characterization of groups using composite kernels and multi-source fMRI analysis data: Application to Schyzophrenia”, *Neuroimage*, Vol. 58, No.2, pp. 526-536, Sep. 2011.
23. V. Gómez-Verdejo, M. Martínez-Ramón, J. Florensa-Vila, A. Oliviero, “Analysis of fMRI time series with Mutual Information”, *Medical Image Analysis*, Vol. 16, No. 2, pp. 451-458, Feb., 2012
24. R. Solera-Ureña, A. Isabel García-Moral, C. Peláez-Moreno, M. Martínez-Ramón, F. Díaz-de-María, “Real-time Robust Automatic Speech Recognition Using Compact Support Vector Machines”, IEEE Transactions on Audio, Speech and Language Processing, Vol. 20, No. 4, pp. 1347-1361, May, 2012.
25. A. El Gonnouni, M. Martínez-Ramón, J. L. Rojo-Álvarez, G. Camps-Valls, A. R. Figueiras-Vidal, C. G. Christodoulou, 'A Support Vector Machine MUSIC Algorithm', IEEE Transactions on Antennas and Propagation, Vol. 60, No 10, pp.: 4901-4910, Oct, 2012.
26. W. Zheng, E. S. Ackley, M. Martínez-Ramón, S. Posse, 'Spatially Aggregated Multi-Class Pattern Classification in Functional MRI using Optimally Selected Functional Brain Areas', Magnetic Resonance Imaging, Vol 31, No 2, pp.: 247-261, Feb, 2013.
27. A. Navia-Vázquez, M. Martínez-Ramón, L. E. García-Muñoz, C. G. Christodoulou, “Adaptive Approximate Kernel Orthogonalization for Antenna Array Processing”, IEEE Transactions on Antennas and Propagation. Vol 61, No 8, pp.: 4091-4100, Oct. 2013
28. Carlos Figuera, Óscar Barquero-Pérez, José L. Rojo-Álvarez, Manel Martínez-Ramón, Alicia Guerrero-Curieses, Antonio J. CaamYear-Fernández, "Spectrally Adapted Mercer Kernels for Support Vector Nonuniform Interpolation". Signal Processig, Elsevier, Vol. 94, pp.: 421-433, Jan. 2014.
29. E. Castro, M. Martínez-Ramón., V. Gómez-Verdejo, K. A. Kiehl, V. D. Calhoun, A Multiple Kernel Learning approach to perform classification of groups from complex-valued fMRI data analysis: application to schizophrenia”, Neuroimage, Vol. 87, No. 15, pp. 1-17, Feb. 2014.
30. José Luis Rojo-Álvarez, Manel Martínez-Ramón, Jordi Muñoz-Marí, Gustavo Camps-Valls, “A Unified SVM Framework for Signal Estimation”, Digital Signal Processing, Elsevier. Vol.26, pp. 1-20. 2014.
31. D. Tuia, J. Muñoz-Marí, J. Luis Rojo-Álvarez, M. Martínez-Ramón, and G. Camps-Valls, “Explicit Recursive and Adaptive Filtering in Reproducing Kernel Hilbert Spaces”, IEEE Transactions on Neural Networks. Vol. 25, No. 7, pp. 1413-1419, July 2014.
32. E. Parrado-Hernández, V. Gómez-Verdejo, M. Martínez-Ramón, J. Shawe-Taylor, P. Alonso, J. Pujol, J. M. Menchón, N. Cardoner, C. Soriano-Mas, “Discovering brain regions relevant to obsessive-compulsive disorder identification through bagging and transduction”, Medical Image Analysis, Vol. 18, No 3., pp. 435-448, April 2014.
33. S. Salcedo-Sanz, J. L. Rojo-Álvarez, G. Camps-Valls and M. Martínez-Ramón, “Support Vector Machines in Engineering: an overview” WIRES Data Mining and Knowledge Discovery, Wiley, Vol. 4, pp. 234-267, April, 2014.
34. Jose Ignacio Moreno, Manel Martínez-Ramón, Pedro S Moura, Javier Matanza, Gregorio López, Smart grid: ICT control for distributed energy resources, International Journal of Distributed Sensor Networks, Vol. 12, No 5, 2016
35. Jones, Christian Birk, Robinson, Matt, Yasaei, Yasser, Caudell, Thomas, Martinez-Ramon, Manel, and Mammoli, Andrea. Next Day Building Load Predictions based on Limited Input Features Using an On-Line Laterally Primed Adaptive Resonance Theory Artificial Neural Network. Buildings and Energy, No SAND2016-7252J. June 2016.
36. Philip Michael Van Every, Mykel Rodriguez, C. Birk Jones, Andrea Mammoli, Manel Martínez-Ramón, Advanced detection of HVAC faults using unsupervised SVM Novelty Detection and Gaussian Process models, Elsevier Energy and Buildings. Vol. 149, August 2017, pp. 216—224
37. O. García-Hinde, G. Terrén-Serrano, M. A. Hombrados-Herrera, V. Gómez-Verdejo, S. Jiménez-Fernández, C. Casanova-Mateo, J. Sanz-Justo, M. Martínez-Ramón, S. Salcedo-Sanz, Evaluation of dimensionality reduction methods applied to numerical weather models for solar radiation forecasting, Engineering Applications of Artificial Intelligence, Engineering Applications of Artificial Intelligence Vol. 69, March 2018, Pages 157-167
38. Tairen Chen, Jane M. Lehr, Olga Lavrova, Manel Martínez-Ramón, Distribution Feeder Level Day-ahead

Peak Load Forecasting Methods And Comparative Study, IET Generation, Transmission and Distribution. No 12, Vol. 13, 31 July 2018, p. 3270 – 3278
39. Eric Ehrhardt Hamke, Manel Martínez-Ramón, Amir Raeisi Nafchi, Ramiro Jordan, Breath Activity Detection Algorithm, Biomedical Signal Processing and Control, Elsevier. Vol 48, pp 1—11, Jan. 2019.
40. Andrea Mammoli, Guillermo Terren Serrano, Anthony Menicucci, Thomas P. Caudell, Manel Martínez-Ramón, An experimental method to merge far-field images from multiple longwave infrared sensors, Solar Energy, Vol. 187, pp. 254-260, Jul. 2019
41. A. A. Mammoli, M. Robinson, V. Ayon, M. Martínez-Ramón, C-f. Chen, J. Abreu, A behavior-centered framework for real-time control and load-shedding of aggregated residential energy resources. Elsevier Energy and buildings. V. 198, 1 September 2019, pp. 275-290.
42. A. Gupta, C.G. Christodoulou, J. L. Rojo-Álvarez, M. Martínez-Ramón, Gaussian Processes for Direction of Arrival Estimation with Random Arrays, IEEE Antennas and Wireless Propagation Letters, Vol. 18,. No 11, pp. 2297 – 2300, Nov. 2019.
43. A. Rajendra Kurup, M. Ajith, M. Martínez-Ramón, Semi-Supervised Emption Recognition and Feature Selection Using Deep Belief Networks, Neurocomputing, Vol 367, Nov. 2019, pp.188-197
44. M. Ajith, M. Martínez-Ramón, Segmentation of Fire and Smoke from Infra-Red Videos using Multiple Unsupervised Algorithms, IEEE Access, vol. 7, pp. 182381-182394, 2019.
45. M. Bhattarai and M. Martínez-Ramón, A Deep Learning Framework for Detection of Targets in Thermal Images to Improve Firefighting, IEEE Access, vol. 8, pp. 88308-88321, 2020.
46. Óscar García Hinde, Vanessa Gómez-Verdejo, Manel Martínez-Ramón, Forecast-informed power load profiling: A novel approach, Engineering applications of artificial intelligence. Volume 96, November 2020, 103948.
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Contracts with companies and agencies

1 - Discrete Equivalent Channel for the Third Generation of Wireless Systems UTRA-TDD
Company: Alcatel
from 01.09.99 to 30.07.2000
P.I.: Javier Ramos López

2 - Studies and Technical Support Simulations regarding the service “Internet on the Sky”
Company: Teledesic
From: 01.05.1999 to 01.05.2000A Bayesian Additive Regression Trees Model for zero and one inflated data for Predicting Individual Treatment Effects in Alcohol Use Disorder Trials
P.I.: Javier Ramos López

3 - Coexistencia FS-FSS en la Banda K (K-Coex)
Company: Hispasat S.A.
From: 23.05.2003 to 23.05..2004
P.I.: Javier Ramos López

4 - Detección y seguimiento de blancos mediante sensor infrarrojo
Agency: Centro de I+D de la Armada (CIDA)
P.I.: Antonio Artés Rodríguez

5- Contrato de investigación con *Indra*: “*CAIMAN: Componentes Avanzados Inteligentes para Minería con Automatización de la iNserción para la iniciativa CENIT ITECBAN”. *Subcontratación del proyecto CENIT financiado por el CDTI y coordinado por Indra titulado “Infraestructura Tecnológica y Metodológica de Soporte para un Core Bancario: ITECBAN”.
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PhD THESIS ADVISED

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1) Nuevas técnicas de deconvolución dispersa robusta
Author: Carlos E. Martínez Cruz
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Author: Thomas Atwood
Institution: The University of New Mexico, ECE Dept.
Year:2009
Co-advised with Dr. Christos G. Christodoulou

3) Máquinas de vectores soporte para reconocimiento robusto de habla
Author: Rubén Solera Ureña
Institution:Universidad Carlos III de Madrid, EPS.
Year:2011

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Author: Amina El Gonnouni
Institution: Universidad Abdelmalek Essaidi
Year: 2012.

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Institution: The University of New Mexico
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Institution: The University of New Mexico
Coadvised with Jane Lehr
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Year: 2021

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Author: Óscar Emilio García Hinde
Institution: Universidad Carlos III de Madrid
Year: March 2022
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Author: Guillermo Terrén Serrano
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Author: Miguel Ángel Hombrados Herrera
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Author: Reza Pirayeshshirazinezhad
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Year: In progress. Scheduled for November, 2025

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Masters degree thesis

Universidad Carlos III de Madrid

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4. Miguel Ángel Rodríguez Jiménez, Estudio Mediante SVM, Boosting y Bootstrap, de la relevancia de las regiones funcionales en la activación cerebral, junio 2005. Sobresaliente.
5. Antonio Sanz Gil, Método de supresión de lípidos en resonancia magnética espectroscópica del cerebro humano, 26 de julio de 2006, Matrícula de honor.
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