

**DEPARTAMENTO DE TEORIA**  
**DE LA SEÑAL Y COMUNIC.**

## **DEPARTAMENTO DE TEORIA DE LA SEÑAL Y COMUNIC.**

### **Actividades de investigación**

#### **Tesis Doctorales**

- Approximate and Exact Inference for Channel Coding  
*Autores:* SALAMANCA MIÑO , L.  
*Director/Codirectores:* PEREZ-CRUZ, F.  
*Centro donde se presentó:* Universidad de Sevilla  
*Año:* 2013
- CONTRIBUCIÓN A LOS MODELOS Y METODOLOGÍAS PARA LA ESTIMACIÓN DE LA CALIDAD PERCIBIDA POR LOS USUARIOS (QoE) A PARTIR DE PARÁMETROS DE CALIDAD DE RED/SERVICIO (QoS) EN SERVICIOS CONVERGENTES MULTIMEDIA (TRIPLE-PLAY)(<http://oa.upm.es/12892/>)  
*Autores:* DE LA CRUZ RAMOS, P.  
*Director/Codirectores:* PEREZ-LEAL, R. ; GONZÁLEZ, F.  
*Centro donde se presentó:* Escuela Superior de Ingenieros de Telecomunicación  
*Año:* 2013
- Elementos Locales En Conjuntos De Clasificadores Diseñados Por "Boosting"  
*Autores:* MAYHUA, E.T.  
*Director/Codirectores:* GOMEZ, V.; FIGUEIRAS-VIDAL, A. R.  
*Año:* 2013
- Gap Waveguide: Low Loss Microwave Passive Components and MMIC Packaging Technique for High Frequency Application  
*Autores:* UZ ZAMAN, A.  
*Director/Codirectores:* RAJO-IGLESIAS, E. ; KILDAL, P.S.  
*Centro donde se presentó:* Chalmers University of Technology  
*Año:* 2013
- Gap Waveguide Technology for Millimeter Wave Applications and Integration with Antennas  
*Autores:* PUCCI, E.  
*Director/Codirectores:* RAJO-IGLESIAS, E. ; KILDAL, P.S.  
*Centro donde se presentó:* Chalmers University of Technology  
*Año:* 2013
- Lifting Transforms On Graphs And Their Application To Video Coding  
*Autores:* MARTINEZ-ENRIQUEZ, E.  
*Director/Codirectores:* ORTEGA, A.; DIAZ-DE-MARIA, F.  
*Año:* 2013
- Particle Filters For Tracking In Wireless Sensor Networks  
*Autores:* ACHUTEGUI, K.  
*Director/Codirectores:* MIGUEZ, J.  
*Centro donde se presentó:* ESCUELA POLITECNICA SUPERIOR  
*Año:* 2013

- Retrieval of Free Space Radiation Patterns through Measured Data in a Non-Anechoic Environment  
*Autores:* ZHAO, W.  
*Director/Codirectores:* SARKAR, T.K.; SALAZAR-PALMA, MAGDALENA  
*Centro donde se presentó:* Syracuse University  
*Año:* 2013
  
- User-centric Need-driven Affect Modeling for Spoken Conversational Agents: Design and Evaluation  
*Autores:* LUTFI, S.  
*Director/Codirectores:* FERNANDEZ, F.; MONTERO, J.M.  
*Centro donde se presentó:* Escuela Técnica Superior de Ingeniería de Telecomunicación  
*Año:* 2013

## **Publicaciones y actividades de difusión de resultados**

### **Publicaciones en revistas científicas nacionales**

- FIGUEIRAS-VIDAL, A. R.  
Cognitive tools, *Dyna*, Vol. 88, 2013, pp. 156-157, ESPAÑA.

### **Publicaciones en revistas científicas internacionales**

- ARENAS-GARCIA, J. ; PETERSEN, K.B.; CAMPS-VALLS, G.; HANSEN, L.K.  
Kernel Multivariate Analysis Framework for Supervised Subspace Learning, *IEEE Signal Processing Magazine*, 2013, ESTADOS UNIDOS DE AMERICA.
  
- ASHEGHAN, M.; DELSHAD, S.S.; BEHESHTI, M.T.H.; TAVAZOEI, M.S.  
Non-fragile control and synchronization of a new fractional order chaotic system, *Applied Mathematics and Computation*, Vol. 222, Núm. OCTUBRE, 2013, pp. 712-721, HOLANDA - PAISES BAJOS.
  
- ASHEGHAN, M.; MIGUEZ, J.  
Robust global synchronization of two complex dynamical networks, *Chaos*, Vol. 23, Núm. 2(023108), 2013, REINO UNIDO.
  
- AZPICUETA, L.A.; ZELLER, M.; FIGUEIRAS-VIDAL, A. R. ; KELLERMANN, W.; ARENAS-GARCIA, J.  
Enhanced Adaptive Volterra Filtering by Automatic Attenuation of Memory Regions and Its Application to Acoustic Echo Cancellation, *IEEE Transactions on Signal Processing*, Vol. 61, Núm. 11, 2013, pp. 2745-2750, ESTADOS UNIDOS DE AMERICA.
  
- BLANCO, D.J.; GOMEZ, J.L.; RAJO-IGLESIAS, E. ; LLOMBART, N.  
Holographic Surface Leaky-Wave Lenses With Circularly-Polarized Focused Near-Fields-Part II: Experiments and Description of Frequency Steering of Focal Length, *IEEE Transactions on Antennas and Propagation*, Vol. 61, Núm. 7, 2013, pp. 3486-3494, ESTADOS UNIDOS DE AMERICA.
  
- BRAVO, A. M.  
Polar codes for Gaussian degraded relay channels, *IEEE Communications letters*, Vol. 17, Núm. 2, 2013, pp. 365-368, ESTADOS UNIDOS DE AMERICA.
  
- BRAVO, A. M.  
Polar codes for the Rayleigh fading channel, *IEEE Communications letters*, Vol. 17, Núm. 12, 2013, pp. 2352-2355, ESTADOS UNIDOS DE AMERICA.

- CASPERS, E.P.; YEUNG, S.H.; SARKAR, T.K.; GARCÍA LAMPÉREZ, A.; SALAZAR-PALMA, MAGDALENA; LAGUNAS, M.A.; PEREZ, A.  
Analysis of Information and Power Transfer in Wireless Communications, *IEEE Antennas and Propagation Magazine*, Vol. 55, 2013, pp. 82-95, ESTADOS UNIDOS DE AMERICA.
- COMMINIELLO, D.; SCARPINITI, M.; AZPICUETA, L.A.; ARENAS-GARCIA, J. ; UNCINI, A.  
Functional Link Adaptive Filters for Nonlinear Acoustic Echo Cancellation, *IEEE Transactions on Audio Speech and Language Processing*, Vol. 21, 2013, pp. 1502-1512, ESTADOS UNIDOS DE AMERICA.
- CORVAJA, R.; GARCIA, J.J.; GARCIA, A.  
Mean Achievable Rates in Clustered Coordinated Base Station Transmission with Block Diagonalization, *IEEE Transactions on Communications*, Vol. 61, 2013, pp. 3483-3493, ESTADOS UNIDOS DE AMERICA.
- DOEHLER, G.H.; GARCIA, L.E.; PREU, S.; MALZER, S.; BAUERSCHMIDT, S.; MONTERO-DE-PAZ, J.; UGARTE, E.; RIVERA, A.; GONZALEZ, V.; SEGOVIA, D.  
From arrays of THz antennas to large-area emitters, *IEEE transactions on terahertz science and technology*, Vol. 3, Núm. 5, 2013, pp. 532-544, ESTADOS UNIDOS DE AMERICA.
- DYAB, W.M.; SARKAR, T.K.; SALAZAR-PALMA, MAGDALENA  
A Physics-Based Green's Function for Analysis of Vertical Electric Dipole Radiation Over an Imperfect Ground Plane, *IEEE Transactions on Antennas and Propagation*, Vol. 61, Núm. 8, 2013, pp. 4148-4157, ESTADOS UNIDOS DE AMERICA.
- GALLARDO-ANTOLÍN, A.; GARCIA-MORAL, A.I.; PEREIRO, Y.; DIAZ-DE-MARIA, F.  
Design of an embedded speech-centric interface for applications in handheld terminals, *IEEE Aerospace and electronic systems magazine*, Vol. 28, Núm. 2, 2013, pp. 24-33, ESTADOS UNIDOS DE AMERICA.
- GARCÍA LAMPÉREZ, A.; LLORENTE ROMANO, S.; SALAZAR-PALMA, MAGDALENA  
Analytical Coupled-Resonator Filter Synthesis Method by Extraction of Fully Canonical Second Order Blocks, *IEEE Microwave and wireless components letters*, Vol. 23, 2013, pp. 137-139, ESTADOS UNIDOS DE AMERICA.
- GARCIA, L.E.; UGARTE, E.; MONTERO-DE-PAZ, J.; RIVERA, A.; SEGOVIA, D.  
Anomalous behavior in the radiation patterns, *IEEE Transactions on Antennas and Propagation*, Vol. 61, Núm. 2, 2013, pp. 973-976, ESTADOS UNIDOS DE AMERICA.
- GARCIA, P.J.; SANCHO, J.L.; FIGUEIRAS-VIDAL, A. R.  
Classifying patterns with missing values using multi-task learning perceptrons, *Expert systems with applications*, Vol. 40, Núm. 4, 2013, pp. 1333-1341, REINO UNIDO.
- GASCON, J.; SALCEDO, S.; CARRO, L.; SAAVEDRA, B.; PORTILLA, A.; ORTIZ, E.G.  
Evolutionary optimization of multi-parametric kernel epsilon-SVMr for forecasting problems, *Soft computing*, Vol. 17, 2013, pp. 213-221, ALEMANIA.
- GIL, V.P.; SILVA GAMEIRO, A.M.; GARCIA, A.  
Space-time code diversity by phase rotation in multi-carrier multi-user systems, *EURASIP Journal on Wireless Communications and Networking*, Vol. 2013, Núm. 148, 2013, EGIPTO.
- GOMEZ, J.L.; BLANCO, D.J.; RAJO-IGLESIAS, E. ; LLOMBART, N.  
Holographic Surface Leaky-Wave Lenses With Circularly-Polarized Focused Near-Fields-Part I: Concept, Design and Analysis Theory, *IEEE Transactions on Antennas and Propagation*, Vol. 61, Núm. 7, 2013, pp. 3475-3485, ESTADOS UNIDOS DE AMERICA.

- GONZALEZ, I.; DIAZ-DE-MARIA, F.  
A region-centered topic model for object discovery and category-based image segmentation, *Pattern Recognition*, Vol. 46, Núm. 9, 2013, pp. 2437-2449, REINO UNIDO.
- JIMENEZ-MORENO, A.; MARTINEZ-ENRIQUEZ, E.; DIAZ-DE-MARIA, F.  
Mode Decision-Based Algorithm for Complexity Control in H.264/AVC, *IEEE transactions on multimedia*, Vol. 15, 2013, pp. 1094-1109, ESTADOS UNIDOS DE AMERICA.
- JINGSHAN, Z.; DAUWELS, J.; VAZQUEZ, M.A.; WALLER, L.  
Sparse ACEKF for phase reconstruction, *Optics Express*, Vol. 21, Núm. 15, 2013, pp. 18125-18137, ESTADOS UNIDOS DE AMERICA.
- KOCH, T.M.; KRAMER, G.  
On noncoherent fading relay channels at high signal-to-noise ratio, *IEEE Transactions on Information Theory*, Vol. 59, Núm. 4, 2013, pp. 2221-2241, ESTADOS UNIDOS DE AMERICA.
- KOCH, T.M.; LAPIDOTH, A.  
At low SNR, asymmetric quantizers are better, *IEEE Transactions on Information Theory*, Vol. 59, Núm. 9, 2013, pp. 5421-5445, ESTADOS UNIDOS DE AMERICA.
- LEBAI, S.; FERNANDEZ, F.; LUCAS, J.M.; LOPEZ, L.; MONTERO, J.M.  
A satisfaction-based model for affect recognition from conversational features in spoken dialog systems, *Speech Communication*, Vol. 55, Núm. 7-8, 2013, pp. 825-840, HOLANDA - PAISES BAJOS.
- LEE, W.; SARKAR, K.T.; MOON, H.; SALAZAR-PALMA, MAGDALENA  
Identification of Multiple Objects Using Their Natural Resonant Frequencies, *IEEE Antennas and Wireless Propagation Letters*, Vol. 12, 2013, pp. 54-57, ESTADOS UNIDOS DE AMERICA.
- LEE, W.; SARKAR, T.K.; MOON, H.; GARCÍA LAMPÉREZ, A.; SALAZAR-PALMA, MAGDALENA  
Effect of Material Parameters on the Resonant Frequencies of a Dielectric Object, *IEEE Antennas and Wireless Propagation Letters*, Vol. 12, 2013, pp. 1311-1314, ESTADOS UNIDOS DE AMERICA.
- LEIVA, J.M.; GOMEZ-CHOVA, L.; CAMPS-VALLS, G.  
Multitask remote sensing data classification, *IEEE Transactions on geoscience and remote sensing*, Vol. 51, Núm. 1, 2013, pp. 151-161, ESTADOS UNIDOS DE AMERICA.
- LEIVA, J.M.; LÓPEZ, J.; BACA, E.  
Characterization of suicidal behaviour with self-organizing maps, *Computational and Mathematical Methods in Medicine*, Vol. 2013, Núm. 136743, 2013, REINO UNIDO.
- LUCAS-CUESTA, J.M.; FERREIROS, J.; FERNANDEZ, F.; ECHEVERRY, J.D.; LUTFI, S.  
On the dynamic adaptation of language models based on dialogue information, *Expert systems with applications*, Vol. 40, Núm. 4, 2013, pp. 1069-1085, REINO UNIDO.
- LUTFI, S.L.; FERNANDEZ, F.; LORENZO, J.; BARRA, R.; MONTERO, J.M.  
I feel you: the design and evaluation of a domotic affect-sensitive spoken conversational agent, *Sensors*, Vol. 13, Núm. 8, 2013, pp. 10519-10538, SUIZA.
- MANCO, J.C.; GIL, V.P.; FERNANDEZ-GETINO, M. J.  
Robust Timing Synchronization for Multicarrier Systems Based on RST Invariance, *IEEE Communications letters*, Vol. 17, Núm. 6, 2013, pp. 1244-1247, ESTADOS UNIDOS DE AMERICA.

- MANZANO, M.; ESPINOSA, F.; BRAVO-SANTOS, A.; SANTISO, E.; BRAVO, A. M.; GARCIA, D.  
Dynamic cognitive self-organized TDMA for medium access control in real-time vehicle to vehicle communications, *Mathematical problems in engineering*, Vol. 2013, Núm. 574528, 2013, SUIZA.
- MARTINEZ, P.; MURILLO-FUENTES, J.J. ; PEREZ-CRUZ, F.  
Tree-structure expectation propagation for LDPC decoding over the BEC, *IEEE Transactions on Information Theory*, Vol. 59, Núm. 6, 2013, pp. 3354-3377, ESTADOS UNIDOS DE AMERICA.
- MEI, Z.; SARKAR, T.K.; SALAZAR-PALMA, MAGDALENA  
A Study of Negative Permittivity and Permeability for Small Sphere, *IEEE Antennas and Wireless Propagation Letters*, Vol. 12, 2013, pp. 1228-1231, ESTADOS UNIDOS DE AMERICA.
- MEI, Z.C.; SARKAR, T.K.; SALAZAR-PALMA, MAGDALENA  
A study of wideband pulse shape distortion due to presence of obstacles, *Microwave and Optical Technology Letters*, Vol. 55, 2013, pp. 1618-1622, ESTADOS UNIDOS DE AMERICA.
- MIGUEZ, J.; CRISAN, D.; DJURIC, P.  
On the convergence of two sequential Monte Carlo methods for maximum a posteriori sequence estimation and stochastic global optimization, *Statistics and Computing*, Vol. 23, Núm. 1, 2013, pp. 91-107, REINO UNIDO.
- MONTERO-DE-PAZ, J.; GARCIA, L.E.; SEGOVIA, D.  
A 300 GHz "Always-In-Focus" focusing system for target detection, *Radioengineering*, Vol. 22, Núm. 2, 2013, pp. 610-617, REPUBLICA CHECA.
- MONTERO-DE-PAZ, J.; OPREA, I.; RYMANOV, V.; BABIEL, S.; GARCIA, L.E.; LIS AUSKAS, A.; HOEFLE, M.; JIMENEZ, A.; COJOCARI, O.; SEGOVIA, D.; PALANDOKEN, M.; TEKIN, T.; STOHR, A.; CARPINTERO DEL, G.  
Compact Modules for Wireless Communication Systems in the E-Band (71-76 GHz), *Journal Infrared, Millimeter and Terahertz Waves*, Vol. 34, Núm. 3-4, 2013, pp. 251-266, ALEMANIA.
- MONTERO-DE-PAZ, J.; OPREA, I.; RYMANOV, V.; BABIEL, S.; GARCIA, L.E.; LIS AUSKAS, A.; HOEFLE, M.; JIMENEZ, A.; COJOCARI, O.; SEGOVIA, D.; STOHR, A.; CARPINTERO DEL, G.  
E-band (71-76 GHz) wireless link using compact modules, *IET Electronics Letters*, Vol. 49, Núm. 7, 2013, pp. 476-477, REINO UNIDO.
- NAVIA, A. ; MARTINEZ-RAMÓN, M. ; GARCIA, L.E.; CHRISTODOULOU, C.G.  
Adaptive approximate Kernel orthogonalization for antenna array processing, *IEEE Transactions on Antennas and Propagation*, Vol. 61, Núm. 8, 2013, pp. 4091-4100, ESTADOS UNIDOS DE AMERICA.
- OMARI, A.; FIGUEIRAS-VIDAL, A. R.  
Feature combiners with gate-generated weights for classification, *IEEE transactions on neural networks and learning systems*, Vol. 24, 2013, pp. 158-163, ESTADOS UNIDOS DE AMERICA.
- OTIN, R.; GARCIA-CASTILLO, L.E.; MARTÍNEZ FERNÁNDEZ, I.; GARCÍA DOÑORO, D.  
Computational Performance of a Weighted Regularized Maxwell Equation Finite Element Formulation, *Progress in electromagnetics research*, Vol. 136, 2013, pp. 61-77, ESTADOS UNIDOS DE AMERICA.
- PAREDES, F.; ZAMORA, G.; ZUFFANELLI, S.; HERRAIZ, F.J.; MARTIN, F.; BONACHE, J.  
FREE-SPACE AND ON-METAL DUAL-BAND TAG FOR UHF-RFID APPLICATIONS IN EUROPE AND USA, *Progress in Electromagnetics Research*, Vol. 141, 2013, pp. 577-590, ESTADOS UNIDOS DE AMERICA.

- PAREDES, M.C.; FERNANDEZ-GETINO, M. J.  
Energy Efficient Peak Power Reduction in OFDM with Amplitude Predistortion Aided by Orthogonal Pilots, *IEEE Transactions on consumer electronics*, Vol. 59, 2013, pp. 45-53, ESTADOS UNIDOS DE AMERICA.
- PEREZ-CRUZ, F.; VAN, S.; MURILLO-FUENTES, J.J. ; LAZARO, M.; SANTAMARIA, I.  
Gaussian processes for nonlinear signal processing, *IEEE Signal Processing Magazine*, Vol. 30, Núm. 4, 2013, pp. 40-50, ESTADOS UNIDOS DE AMERICA.
- PINO, S.; GONZALEZ, F. J.  
On the use of modified Cramer-Rao Bound in sensor deployment, *IEEE Sensors journal*, Vol. 13, Núm. 11, 2013, pp. 4163-4171, ESTADOS UNIDOS DE AMERICA.
- PRIETO DEL, C.; FERNANDEZ-GETINO, M. J.  
Iterative Joint Estimation Procedure for Channel and Frequency Offset in Multi-Antenna OFDM Systems With an Insufficient Cyclic Prefix, *IEEE Transactions on Vehicular Technology*, Vol. 62, 2013, pp. 3653-3662, ESTADOS UNIDOS DE AMERICA.
- PUCCI, E.; ZAMAN, A.U.; RAJO-IGLESIAS, E. ; KILDAL, P.S.; KISHK, A.  
Study of Q-factors of ridge and groove gap waveguide resonators, *IET microwaves, antennas and propagation*, Vol. 7, Núm. 11, 2013, pp. 900-908, REINO UNIDO.
- QUEVEDO, O.; L. INCLAN-SANCHEZ ; VAZQUEZ ROY, J. L. ; RAJO-IGLESIAS, E.  
Compact Reconfigurable Planar EBGs Based on Short-Circuited Hairpin Resonators, *IEEE Microwave and wireless components letters*, Vol. 23, 2013, pp. 462-464, ESTADOS UNIDOS DE AMERICA.
- RAJO-IGLESIAS, E. ; PUCCI, E.; KISHK, A.A.; KILDAL, P.S.  
Suppression of Parallel Plate Modes in Low Frequency Microstrip Circuit Packages Using Lid of Printed Zigzag Wires, *IEEE Microwave and wireless components letters*, Vol. 23, Núm. 7, 2013, pp. 359-361, ESTADOS UNIDOS DE AMERICA.
- RAJO-IGLESIAS, E. ; QUEVEDO, O.  
Tilting Radiation Patterns in Linear Arrays Without Phase Shifters, *IEEE Transactions on Antennas and Propagation*, Vol. 61, 2013, pp. 3360-3364, ESTADOS UNIDOS DE AMERICA.
- RIVERA, A.; GARCIA, L.E.; DOHLER, G.; MALZER, S.; PREU, S.; BAUERSCHMIDT, S.; MONTERO-DE-PAZ, J.; UGARTE, E.; ANDRES, B.; IZQUIERDO, S.; SEGOVIA, D.  
Arrays and new antenna topologies for increasing THz power generation using photomixers, *Journal Infrared, Millimeter and Terahertz Waves*, Vol. 34, Núm. 2, 2013, pp. 97-108, ALEMANIA.
- ROBLES, G. ; SANCHEZ-FERNANDEZ, M. ; ALBARRACIN, R.; ROJAS-MORENO, M.V.; RAJO-IGLESIAS, E. ; MARTINEZ-TARIFA, J. M.  
Antenna parametrization for the detection of partial discharges, *IEEE transactions on instrumentation and measurement*, Vol. 62, Núm. 5, 2013, pp. 932-941, ESTADOS UNIDOS DE AMERICA.
- SALAMANCA, L.; MARTINEZ, P.; PEREZ-CRUZ, F.; MURILLO-FUENTES, J.J.  
Tree-structured expectation propagation for LDPC decoding over BMS channels, *IEEE Transactions on Communications*, Vol. 61, Núm. 10, 2013, pp. 4086-4095, ESTADOS UNIDOS DE AMERICA.
- SHIN, C.; JU, J.; KANG, D.; CHOI, S.; LEE, C.; CHEONG, C.; SEO, J.; SARKAR, T.K.; SALAZAR-PALMA, MAGDALENA  
Implementation of an Antenna Array for Satellite Communications with the Capability of Canceling Jammers, *IEEE Antennas and Propagation Magazine*, Vol. 55, 2013, pp. 32-48, ESTADOS UNIDOS DE AMERICA.

- SILVA, M.T.M.; ARENAS-GARCIA, J.  
A Soft-Switching Blind Equalization Scheme via Convex Combination of Adaptive Filters, *IEEE Transactions on Signal Processing*, Vol. 61, 2013, pp. 1171-1182, ESTADOS UNIDOS DE AMERICA.
- VAZQUEZ, M.A.; MIGUEZ, J.  
User Activity Tracking in DS-CDMA Systems, *IEEE Transactions on Vehicular Technology*, Vol. 62, Núm. 7, 2013, pp. 3188-3203, ESTADOS UNIDOS DE AMERICA.
- YEUNG, S.H.; MEI, Z.C.; SARKAR, T.K.; SALAZAR-PALMA, MAGDALENA  
Design and Testing of a Single-Layer Microstrip Ultrawideband 90 degrees Differential Phase Shifter , *IEEE Microwave and wireless components letters*, Vol. 23, 2013, pp. 122-124, ESTADOS UNIDOS DE AMERICA.
- YEUNG, S.H.; SARKAR, T.K.; SALAZAR-PALMA, MAGDALENA; GARCÍA LAMPÉREZ, A.  
A Multisection Phase Correcting Network for Broadband Quadrature Power Splitter Design, *IEEE Microwave and wireless components letters*, Vol. 23, 2013, pp. 468-470, ESTADOS UNIDOS DE AMERICA.
- ZAMORA, G.; PAREDES, F.; HERRAIZ, F.J.; MARTIN, F.; BONACHE, J.  
Bandwidth limitations of ultra high frequency-radio frequency identification tags, *IET microwaves, antennas and propagation*, Vol. 7, Núm. 10, 2013, pp. 788-794, REINO UNIDO.
- ZHENG, W.; ACKLEY, E.S.; POSSE, S.; MARTINEZ-RAMÓN, M.  
Spatially aggregated multiclass pattern classification in functional MRI using optimally selected functional brain areas, *Magnetic resonance imaging*, Vol. 31, 2013, pp. 247-261, ESTADOS UNIDOS DE AMERICA.

## Libros

- FIGUEIRAS-VIDAL, A. R.  
De máquinas y humanos. El arte de la toma de decisiones, *REAL ACADEMIA DE INGENIERIA, ESPAÑA*, 2013.

## Colaboraciones en obras colectivas

- CADORE, J.A.; GALLARDO-ANTOLÍN, A.; PELAEZ, C.  
*Auditory-inspired Morphological Processing of Spectrograms for Speech Processing*, en: Application of Speech Technologies, UNIVERSIDAD DE GRANADA, ESPAÑA, pp. 315-332, 2013.

## Ponencias y Comunicaciones a congresos

- ALVARADO, A.; BRANNSTROM, F.; AGRELL, E.; KOCH, T.M.  
*High-SNR asymptotics of mutual information for discrete constellations*; en: IEEE International Symposium on Information Theory (ISIT) 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- AZPICUETA, L.A.; FIGUIERAS-VIDAL, A.R.; ARENAS-GARCIA, J.  
*Acoustic echo cancellation in discrete Fourier transform domain based on adaptive combination of adaptive filters*; en: Proceedings of Meetings on Acoustics, AMERICAN INSTITUTE OF PHYSICS, ESTADOS UNIDOS DE AMERICA, 2013.



- BABIEL, S.; FLAMMIA, I.; STOEHR, A.; MONTERO-DE-PAZ, J.; GARCIA, L.E.; SEGOVIA, D.; CARPINTERO, G.; LISAIUSKAS, A.; COJOCARI, O.  
*Compact transmitter and receiver modules for E-band wireless links*, 2013 Optical Fiber Communication Conference and Exposition and the National Fiber Optic Engineers Conference (OFC/NFOEC), *West Katella Avenue, California*, ESTADOS UNIDOS DE AMERICA, 2013.
- BIFET, A.; READ, J.M.; ZLIOBAITE, I.; PFAHRINGER, B.; HOLMES, G.  
*Pitfalls in benchmarking data stream classification and how to avoid them*; en: Machine Learning and Knowledge Discovery in Databases : European Conference, ECML PKDD 2013, Prague, Czech Republic, September 23-27, 2013, Proceedings, SPRINGER , 2013.
- BLANCO, D.J.; LLOMBART, N.; RAJO-IGLESIAS, E. ; MACI, S.  
*Phased array integrated with Frequency Selective Surfaces for angular filtering*; en: 7th European Conference on Antennas and Propagation (EuCAP), 2013, 2013.
- CALLE, F.; GONZALEZ, I.; DIAZ-DE-MARIA, F.  
*Mid-level feature set for specific event and anomaly detection in crowded scenes*, 20th IEEE International Conference on Image Processing (ICIP), 2013, *MELBOURNE, AUSTRALIA*, 2013.
- CORVAJA, R.; GARCIA, J.J.; GARCIA, A.  
*Partial coordination in clustered base station MIMO transmission*; en: IEEE Wireless Communications and Networking Conference (WCNC, 2013), 2013.
- DURISI, G.; TARABLE, A.; KOCH, T.M.  
*On the multiplexing gain of MIMO microwave backhaul links affected by phase noise*; en: IEEE International Conference on Communications (ICC), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- FERNÁNDEZ-BES J.; AZPICUETA, L.A.; SILVA, M.T.M.; ARENAS-GARCIA, J.  
*Improved least-squares-based combiners for diffusion networks*; en: 10th International Symposium on Wireless Communication Systems (ISWCS 2013), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- FERNÁNDEZ-BES J.; GARCIA, A.; CID-SUEIRO, J.  
*Battery-Aware Selective Transmitters in Energy-Harvesting Sensor Networks: Optimal Solution and Stochastic Dual Approximation*; en: 10 th International Symposium on Wireless Communication Systems, 2013.
- FERNANDEZ-GETINO, M. J. ; PRIETO DEL, C.  
*Suppression of cyclic prefix in down-link LTE like systems to increase capacity*; en: 2013 IEEE 77th Vehicular Technology Conference (VTC Spring), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- FUENTE, A.; PEREZ-LEAL, R. ; GARCIA, A.  
*Análisis de prestaciones de eMBMS en LTE: redes de frecuencia única*; en: XXVIII Simposium Nacional de la Unión Científica Internacional de Radio. URSI 2013, , 2013.
- FUENTE, A.; PEREZ-LEAL, R. ; GARCIA, A.  
*Performance analysis of eMBMS in LTE: Dynamic MBSFN Areas*; en: Riverbed Opnetwork Annual Industry Conference Proceeding : Opnetwork2013, 2013.

- GARCIA, L.E.; DOHLER, G.; MONTERO-DE-PAZ, J.; UGARTE, E.; RIVERA, A.; PREU, S.; MALZER, S.; BAURESCHMIDT, S.; SEGOVIA, D.  
*New device for continuous-wave THz emission: large area emitter*; en: Proceedings of the European Conference on Antennas and Propagation, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- GARCIA, L.E.; MONTERO-DE-PAZ, J.; RIVERA, A.; CAMARA, I.; GÜSTEN, R.; GENERALOV, A.; LIOUBTCHENKO, D.; ACEDO, P.; DIOS, C.D.; CRIADO, A.R.; UGARTE, E.; RÄISÄNEN, A.V.; SEGOVIA, D.  
*THz antenna array based on photomixers for radioastronomy applications*, 7th European Conference on Antennas and Propagation (EuCAP 2013), Gothenburg, SUECIA, 2013.
- GARCIA, L.E.; PREU, S.; RIVERA, A.; MALZER, S.; DOHLER, G.; GENERALOV, A.A.; MENDEZ, M.; LIOUBTCHENKO, D.; RAISANEN, A.V.; SEGOVIA, D.  
*New antenna topology coupled to a new waveguide structure for THz radiation and propagation*; en: 38th International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz 2013), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- GARCIA, L.E.; RIVERA, A.; MENDEZ, M.; SERNA, J.M.; LOPEZ FERNANDEZ, J.A.; SEGOVIA, D.  
*New topology ultrawideband antenna for VLBI2010*; en: Proceedings of the European Conference on Antennas and Propagation (EuCAP 2013), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- GONZALEZ, I.; BUSO, V.; BENOIS-PINEAU, J.; BOURMAUD, G.; MEGRET, R.  
*Modeling instrumental activities of daily living in egocentric vision as sequences of active objects and context for alzheimer disease research* ; en: Proceedings of the 1st ACM international workshop on Multimedia indexing and information retrieval for healthcare, ACM, , 2013.
- GOPALAN, P.; RODRIGUEZ, F.J.; RANGANATH, R.; BLEI, D.M.  
*Bayesian nonparametric poisson factorization for recommendation systems*; en: Workshop on Probabilistic Models for Big Data at Neural Information Processing Systems Conference 2013 (NIPS 2013), 2013.
- HERRAIZ, F.J.; CUADRADO, I.; SEGOVIA, D.  
*Parche de doble frecuencia cargado con resonadores OCSR*; en: XXVIII Simposium Nacional de la Unión Científica Internacional de Radio (URSI 2013), , 2013.
- HERRAIZ, F.J.; GONZALEZ-MORENO, A.; SEGOVIA, D.  
*Chipless RFID tags based on magneto-inductive or electro-inductive delay lines*; en: 21st International Conference on Applied Electromagnetics and Communications (ICECom), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- JIMENEZ, A.; GUZMAN, R.C.; GARCIA, L.E.; SEGOVIA, D.; CARPINTERO DEL, G.  
*Continuous wave millimeter and TeraHertz generation using a Photonic Integrated Circuit*, 38th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz, 2013), MAINZ, ALEMANIA, 2013.
- JIMENEZ-MORENO, A.; MARTINEZ-ENRIQUEZ, E.; DIAZ-DE-MARIA, F.  
*Standard compliant flicker reduction method with PSNR loss control*; en: 2013 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, ESTADOS UNIDOS DE AMERICA, 2013.

- KOBLENTS, E.; MIGUEZ, J.  
*A population Monte Carlo scheme for computational inference in high dimensional spaces*; en: International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2013 IEEE, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- KOBLENTS, E.; MIGUEZ, J.  
*Robust mixture population Monte Carlo scheme with adaptation of the number of components*; en: Proceedings of the 21st European Signal Processing Conference (EUSIPCO), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- KOBLENTS, E.; MIGUEZ, J.  
*Particle filtering with transformed weights*; en: 5th International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP), 2013 IEEE, 2013.
- L. INCLAN-SANCHEZ ; RAJO-IGLESIAS, E. ; QUEVEDO, O.; VAZQUEZ ROY, J. L.  
*On the miniaturization strategies for strip-type soft surfaces*; en: Proceedings of the 7th European Conference on Antennas and Propagation, 2013.
- L. INCLAN-SANCHEZ ; RAJO-IGLESIAS, E. ; VAZQUEZ ROY, J. L.  
*Dual band monopolar patch antenna for industrial applications*; en: Antennas and Propagation Society International Symposium (APSURSI), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- LEBAI, S.; FERNANDEZ, F.; LORENZO-TRUEBA, J.; BARRA-CHICOTE, R.; MONTERO, J.M.  
*NEMOHIFI: An Affective HiFi Agent*; en: Proceedings of the 15th ACM on International conference on multimodal interaction(ICMI '13), ACM, ESTADOS UNIDOS DE AMERICA, 2013.
- LLINARES-LOPEZ, F.; SANCHEZ-FERNANDEZ, M. ; PARRADO, E. ; GARCIA, A.  
*Interference-aware MIMO precoder design with realistic power constraints*; en: IEEE International Conference on Communications Workshops (ICC, 2013), 2013.
- LLOMBART, N.; BLANCO, D.J.; RAJO-IGLESIAS, E. ; MONTESANO-BENITO, A.; CAMPUZANO, J.  
*Thinned printed technology phased array enhanced with Frequency Selective Surfaces for space applications*; en: 2013 IEEE Antennas and Propagation Society International Symposium (APSURSI), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- LUDEÑA, J.D.; GALLARDO-ANTOLÍN, A.  
*NMF-based temporal feature integration for acoustic event classification*; en: 14th Annual Conference of the International Speech Communication Association, 2013.
- LUDEÑA, J.D.; GALLARDO-ANTOLÍN, A.  
*NMF-Based Spectral Analysis for Acoustic Event Classification Tasks*; en: Advances in Nonlinear Speech Processing : 6th International Conference The Non-Linear Speech Processing (NOLISP 2013), Mons, Belgium, June 19-21, 2013. Proceedings, SPRINGER SCIENCE BUSINESS MEDIA B.V., ALEMANIA, 2013.
- LUENGO, D. ; VIA, J.; MONZON, S.; TRIGANO, T.; ARTES, A.  
*Cross-products lasso*; en: IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.

- MARTINEZ, P.; MITCHELL, D.G.M.; TRUHACHEV, D.; COSTELLO, D.J.  
*A finite length performance analysis of LDPC codes constructed by connecting spatially coupled chains*; en: Information Theory Workshop (ITW), 2013 IEEE, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, , 2013.
- MARTINEZ, P.; URBANKE, R.  
*A closed-form scaling law for convolutional LDPC codes over the BEC*; en: 2013 IEEE Information Theory Workshop (ITW), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, , 2013.
- MARTINEZ-ENRIQUEZ, E.; DIAZ-DE-MARIA, F. ; CID-SUEIRO, J. ; ORTEGA, A.  
*Filter optimization and complexity reduction for video coding using graph-based transforms*; en: 20th IEEE International Conference on Image Processing (ICIP), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- MORALES, M.; GARCIA, A.; GUTIERREZ, J.  
*Achievable throughput with Block Diagonalization on OFDM indoor demonstrator*; en: 21st European Signal Processing Conference (EUSIPCO 2013), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- MORALES, M.; PLATA, J.; TOUMPAKARIS, D.; GARCIA, A.  
*Exploiting blind interference alignment in cellular systems*; en: IEEE Communication Theory Workshop (CTW), 2013, 2013.
- MUÑOZ, S.; ARENAS-GARCIA, J. ; GOMEZ, V.  
*Iterative Orthonormalized Partial Least Squares with Sparsity Constraints*, 38th International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2013), 2013.
- NASCIMENTO, V.H.; SILVA, M.T.M.; ARENAS-GARCIA, J.  
*A low-cost implementation strategy for combinations of adaptive filters*, 38th International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2013), 2013.
- PAREDES, M.C.; FERNANDEZ-GETINO, M. J.  
*Comparison of architectures for PAPR reduction in OFDM combining pilot symbols with constellation extension*; en: IEEE Eurocon Conference, 2013.
- PINEIRO-AVE, J.; BLANCO-VELASCO, M.; CRUZ-ROLDAN, F.; ARTES, A.  
*Noise cancellation in IR video based on Empirical Mode Decomposition*; en: Proceedings of XXIII Conference on Automatic Target Recognition (SPIE), 2013.
- PUCCI, E.; KILDAL, P.S.; RAJO-IGLESIAS, E. ; VAZQUEZ ROY, J. L.  
*Design of a four-element horn antenna array fed by inverted microstrip gap waveguide*; en: Proceedings of the IEEE AP-S International Symposium/ URSI 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- PUCCI, E.; RAJO-IGLESIAS, E. ; KILDAL, P.  
*Design of a dual-mode horn element for microstrip gap waveguide fed array*; en: 7th European Conference on Antennas and Propagation (EuCAP), 2013, 2013.
- RAJO-IGLESIAS, E. ; L. INCLAN-SANCHEZ ; VAZQUEZ ROY, J. L. ; PUZZI, E.; KILDAL, P.S.  
*Diseño de arrays alimentados con microstrip gap waveguide*, XXVIII Simposium Nacional de la Unión Científica Internacional de Radio (URSI) 2013, SANTIAGO, ESPAÑA, 2013.

- RAJO-IGLESIAS, E. ; PABLO, M.L.; SANCHEZ-FERNANDEZ, M.  
*Evaluation of performance of compact double diversity printed elements for MIMO applications*; en: 2013 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, 2013.
- READ, J.M.; MARTINO, L.; LUENGO, D.  
*Efficient Monte Carlo optimization for multi-label classifier chains*; en: IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- ROBLES, G. ; ALBARRACIN, R.; VAZQUEZ ROY, J. L. ; RAJO-IGLESIAS, E. ; MARTINEZ-TARIFA, J. M. ; ROJAS-MORENO, M.V.; SANCHEZ-FERNANDEZ, M. ; ARDILA, J.A.  
*On the use of Vivaldi antennas in the detection of partial discharges*; en: Proceedings of the 2013 IEEE International Conference on Solid Dielectrics (ICSD 2013), (11), IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- RODRIGUEZ, F.J.; VALERA, M.I.; BLANCO, C.; PEREZ-CRUZ, F.  
*Bayesian nonparametric comorbidity analysis of psychiatric disorders*; en: Proceedings of the 9th Conference on Bayesian Nonparametrics, 2013, 2013.
- RODRIGUEZ, F.J.; VALERA, M.I.; MARTINEZ, P.; BLANCO, C.; PEREZ-CRUZ, F.  
*Infinite continuous feature model for Psychiatric comorbidity analysis*; en: Workshop in Machine Learning for Clinical Data Analysis and Healthcare at Neural Information Processing Systems Conference 2013 (NIPS2013), 2013.
- SALAMANCA, L.; MURILLO-FUENTES, J.J. ; MARTINEZ, P.; PEREZ-CRUZ, F.  
*Improving the BP estimate over the AWGN channel using Tree-structured expectation propagation*; en: IEEE International Symposium on Information Theory (ISIT), 2013, 2013.
- SANCHEZ-FERNANDEZ, M. ; VALCARCEL, S.; ZAZO, S.  
*A unified framework for linear function approximation of value functions in stochastic control*; en: Proceedings of the 21st European Signal Processing Conference (EUSIPCO), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- SERRANO-DROZDOWSKYJ, E.; LOPEZ-CASTROMAN, J.; LEIVA, J.M.; BLASCO-FONTECILLA, H.; GARCIA-IETO, R.; ARTES, A.; MORANT-GINESTRAR, C.; BLANCO, C.; COURTET, P.; BACA, E.  
*A naturalistic study of the diagnostic evolution of schizophrenia*; en: European Psychiatry : Abstracts of the 21th European Congress of Psychiatry, ELSEVIER CUSTOMER SERVICE, 2013.
- UGARTE, E.; SEGOVIA, D.; HERRAIZ, F.J.; ALBARRACIN, L.F.  
*Sensitivity and Stability Analysis of Non-Foster Matched Two Port Antennas*, European Conference on Antennas and Propagation (EuCAP 2013), Gothenburg, SUECIA, 2013.
- VALVERDE, F. J. ; CARRILLO DE ALBORNOZ, J.; PELAEZ, C.  
*A proposal for new evaluation metrics and result visualization technique for sentiment analysis tasks*, SPRINGER , , 2013.
- VALVERDE, F. J. ; PELAEZ, C.  
*Spectral Lattices of reducible matrices over completed idempotent semifields*, La Rochelle, FRANCIA, 2013.
- VALVERDE, F. J. ; PELAEZ, C.  
*Systems vs. Methods: an Analysis of the Affordances of Formal Concept Analysis for Information Retrieval*, CEUR, 2013.

- VAZQUEZ, M.A.; JING, J.; DOUWELS, J.; VIALATTE, F.B.  
*Automated detection of paroxysmal gamma waves in meditation EEG* ; en: IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, 2013.
- YANG, W.; DURISI, G.; KOCH, T.M.; POLYANSKIY, Y.  
*Quasi-static SIMO fading channels at finite blocklength*; en: IEEE International Symposium on Information Theory Proceedings (ISIT), 2013, IEEE - THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC, , 2013.
- YANG, W.; DURISI, G.; KOCH, T.M.; POLYANSKIY, Y.  
*Block-Fading channels at finite blocklength*; en: Proceedings of the Tenth International Symposium on Wireless Communication Systems (ISWCS 2013), VDI-VDE-IT, 2013.
- ZLOTNIK, A.; MONTERO, J.M.; GALLARDO-ANTOLÍN, A.  
*A comparison of multivariate SARIMA and SVM models for emergency department admission prediction*, 6th International Conference on Health Informatics (HEALTHINF 2013), BARCELONA, ESPAÑA, 2013.

## **Propiedad Industrial/intelectual**

- *Inventores:* VAZQUEZ ROY, J. L. ; L. INCLAN-SANCHEZ ; RAJO-IGLESIAS, E. ; QUEVEDO, O.  
*Antena microstrip monopolar de doble frecuencias*  
*Tipo:* MODELO DE UTILIDAD  
*Titular:* Ormazabal Protection and Automation, SL  
*Número Registro:* **ES 1085529 Y**  
*Fecha Solicitud:* 18/07/2013  
*Fecha Concesión:* 08/10/2013  
*Países:* ESPAÑA

## **Actividades de formación y movilidad de personal investigador**

### **Estancias en otros centros**

- ANA GARCIA ARMADA  
*Título:* Coordinación de estaciones base en sistemas celulares, Univ. de Southampton.  
*Centro Externo:* University of Southampton  
*País:* REINO UNIDO  
*Duración:* 01/06/2013 a 31/08/2013.
- ANTONIO ARTES RODRIGUEZ  
*Título:* Human Activity Recognition  
*Centro Externo:* Departamento de Métodos Estadísticos; Universidad Federal do Rio de Janeiro  
*País:* BRASIL  
*Duración:* 24/06/2013 a 27/07/2013.
- ANTONIO ARTES RODRIGUEZ  
*Título:* Human Activity Recognition  
*Centro Externo:* DTU Compute; Technical University of Denmark  
*País:* DINAMARCA  
*Duración:* 02/04/2013 a 25/05/2013.

- **ASCENSION GALLARDO ANTOLIN**  
*Título:* Automatic Selection of High Quality Speech Segments from Spontaneous Recordings with Application to the Automatic and Non-Supervised Generation of Voices  
*Centro Externo:* The Centre for Speech Technology Research (CSTR), University of Edinburgh  
*País:* REINO UNIDO  
*Entidad Financiadora:* Dirección General de Universidades del Ministerio de Educación, Cultura y Deportes (MEC)  
*Duración:* 01/05/2013 a 31/07/2013.
  
- **FERNANDO PEREZ CRUZ**  
*Título:* "Machine Learning"  
*Centro Externo:* Amazon, Nueva York  
*País:* ESTADOS UNIDOS DE AMERICA  
*Duración:* 03/06/2013 a 31/05/2014.
  
- **FRANCISCO JESUS RODRIGUEZ RUIZ**  
*Título:* Bayesian Nonparametric Models for Recommendation Systems  
*Centro Externo:* Department of Computer Science, Princeton University  
*País:* ESTADOS UNIDOS DE AMERICA  
*Duración:* 29/08/2013 a 12/12/2013.
  
- **JESUS FERNANDEZ BES**  
*Título:* Optimization of Combination Coeficients in Adaptive Diffusion Network  
*Centro Externo:* Universidad de California, Los Ángeles  
*País:* ESTADOS UNIDOS DE AMERICA  
*Entidad Financiadora:* MINISTERIO DE CIENCIA E INNOVACI  
*Duración:* 22/09/2013 a 22/12/2013.
  
- **JOAQUIN MIGUEZ ARENAS**  
*Título:* Métodos Computacionales para Inferencia Estadística en Sistemas Dinámicos de muy Alta Dimensión  
*Centro Externo:* Imperial College London  
*País:* REINO UNIDO  
*Duración:* 01/02/2013 a 31/12/2013.
  
- **LUCA MARTINO**  
*Título:* Cooperación UC3M (Madrid)-UFRJ (Rio de Janeiro)  
*Centro Externo:* Universidade Federal do Rio de Janeiro  
*País:* BRASIL  
*Duración:* 15/05/2013 a 20/07/2013.
  
- **LUIS ANTONIO AZPICUETA RUIZ**  
*Título:* Estancia de investigación postdoctoral en la Universidad de Sao Paulo (USP)  
*Centro Externo:* Universidad de Sao Paulo  
*País:* BRASIL  
*Duración:* 09/12/2013 a 11/03/2014.
  
- **LUIS ENRIQUE GARCIA MUÑOZ**  
*Título:* Diseño y medida de emisores de THz en estructura de array.  
*Investigador Externo:* DÖHLER , G.  
*Centro Externo:* Friedrich-Alexander Erlangen-Nürnberg University, Erlangen  
*País:* ALEMANIA  
*Duración:* 01/06/2013 a 15/10/2013.

- **MARIA DEL ROCIO ARROYO VALLES**  
*Título:* Beca de movilidad posdoctoral en centros extranjeros (financiada por el Ministerio de Educación, Ciencia y Deporte de España) bajo el programa nacional de movilidad de recursos humanos del plan nacional I+D+i 2008/2011  
*Centro Externo:* TU Delft (Delft University of Technology)  
*País:* HOLANDA - PAISES BAJOS  
*Duración:* 28/08/2012 a 27/08/2014.
  
- **PABLO MARTINEZ OLMOS**  
*Título:* Implementación de Sistemas Avanzados de Codificación LDPC de Tipo Convolutacional  
*Centro Externo:* Department of Electrical Engineering, Notre Dame University  
*País:* ESTADOS UNIDOS DE AMERICA  
*Duración:* 15/10/2013 a 20/11/2013.

### **Estancias de investigadores externos en la universidad**

- **JERONIMO ARENAS GARCIA**  
*Título:* Visita de estudiante de doctorado dentro de Proyecto bilateral con IIT Kharagpur  
*Investigador Externo:* DAS, B.K.  
*Centro Externo:* I.I.T. Kharagpur  
*País:* INDIA  
*Duración:* 19/08/2013 a 18/12/2013.