

## PROGRAMA MADRINET

### Publicaciones científicas 2006-2008

#### Artículos en Congresos

---

“Advanced algorithms for real-time video tracking with multiple targets”, A. Loza, M. A. Patricio, J. Garcia, J.M. Molina. 10th International Conference on Control, Automation, Robotics and Vision, ICARCV 2008. Diciembre 17-20, 2008.

“Developing an Ambient Home Care System: Context Toolkit-based Design and Implementation”, Hristova, A., Bernardos, A., Casar, J.R. *Proc. of the The Ninth International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT'08)*, Dunedin, Nueva Zelanda , 1-4 Diciembre, 2008.

“Context-aware services for Ambient Assisted Living: A case study”, Hristova, A., Bernardos, A., Casar, J.R. *Proc. of the 1st International Symposium on Applied Sciences in Biomedical and Communication Technologies*, Aalborg, Dinamarca, 25-28 Octubre, 2008.

“Context-awareness in workspaces: an analysis of the application developer experience”, Rodríguez, T., Hristova, A., Bernardos, A.M. *2<sup>nd</sup> Workshop in User-Centric Technologies and Applications*, Salamanca, España, 24 Octubre 2008.

“Efficient Techniques for Indoor Localization based on WLAN Networks”, A. del Corte-Valiente; O. Gutiérrez-Blanco; J. Manuel Gómez-Pulido; M. Felipe Cátedra-Pérez. *Second International Workshop on User-Centric Technologies and applications (MADRINET'08)*, University of Salamanca (Spain), 22-24 October, 2008.

“Determinist channel modelling for localization”, M. Felipe Cátedra, José M. Gómez, Santiago Cejudo, Lorena Lozano, Iván Gonzalez. *Second International Workshop on User-Centric Technologies and applications (MADRINET'0)*, University of Salamanca, Spain, 22-24 Octubre, 2008.

“An indoor location method based on a fusion map using Bluetooth and WLAN technologies”, Aparicio, S., Pérez, J., Bernardos, A.M., Casar, J.R. *International Symposium on Distributed Computing and Artificial Intelligence 2008 (DCAI 2008)*, pp. 702-710, Springer. J.M Corchado, S. Rodriguez, J. Llinas, J.M. Molina (eds.). Salamanca, Spain, 22th-24th October 2008

“Design and Deployment of Context-Aware Services: A Prototyping Case-Study”, Bernardos, A.M., Tarrío, P., Iglesias, J., Casar, J.R. *International Symposium on Distributed Computing and Artificial Intelligence 2008 (DCAI 2008)*, Vol. 50/2009, pp. 711-719, Springer. J.M Corchado, S. Rodríguez, J. Llinas, J.M. Molina (eds.). Salamanca, Spain, 22th-24th October 2008.

“Experimental Evaluation of Channel Modelling and Fingerprinting Localization Techniques for Sensor Networks”, Martín, H., Tarrío, P. Bernardos, A.M., Casar, J.R. *International Symposium on Distributed Computing and Artificial Intelligence 2008 (DCAI 2008)*, Vol. 0/2009, pp. 748-756, Berlín: Springer. J.M Corchado, S. Rodriguez, J. Llinas, J.M. Molina (eds.), Salamanca, Spain, 22th-24th October 2008.

"Location Based Services: a new area for the use of Superresolution Algorithms", Raúl O. González-Pacheco and Felipe Cátedra. *3rd Symposium of Ubiquitous Computing and Ambient Intelligence 2008*, University of Salamanca, Spain, 22 -24 Octubre, 2008.

"A New Positioning Technique for RSS-Based Localization Based on a Weighted Least Squares Estimator", Tarrío, P., Bernardos, A.M., Besada, J.A., Casar, J.R. *5th IEEE International Symposium on Wireless Communication Systems*, 22-24 Octubre 2008, Reykavik.

"An indoor location system based on RSS probability distribution estimation", Moreno, C.J., Bernardos, A.M., Casar, J.R. *2<sup>nd</sup> Workshop in User-Centric Technologies and Applications*, Salamanca, España, 24 Octubre 2008.

"Building a Knowledge Based System for an Airport Case of Use", N. Sánchez, J. Carbó, J.M. Molina. *International Symposium on Distributed Computing and Artificial Intelligence 2008 (DCAI 2008)* in Series of Advances in Soft Computing, pp739-747, Springer-Verlag. Publicación de la ponencia en *2nd Workshop in User-centric Technologies MADRINET 2008*. España, Salamanca. Octubre 23-25, 2008.

"On the process of designing an Activity Recognition System using symbolic and subsymbolic techniques", R. Cilla, M. A. Patricio, A. Berlanga, and J. M. Molina. *International Symposium on Distributed Computing and Artificial Intelligence 2008 (DCAI 2008)* in Series of Advances in Soft Computing, pp 729-738, Springer-Verlag. Publicación de la ponencia en *2nd Workshop in User-centric Technologies MADRINET 2008*. España, Salamanca. Octubre 23-25, 2008.

"Requirements for supervised fusion adaption through HCI in a multi-target multi-sensor environment", L. Cardoso, J. García, J.M. Molina. *International Symposium on Distributed Computing and Artificial Intelligence 2008 (DCAI 2008)* in Series of Advances in Soft Computing, pp 526-535, Springer-Verlag. Publicación de la ponencia en *DCAI 2008*. España, Salamanca, Octubre 23-25, 2008.

"Human-Computer Interaction and Usability Research: capturing infra-red light", V. Quintana, M. A. Patricio, J.M. Molina. *MADRINET 2008*. Salamanca. Octubre 23-25, 2008.

"Using Temporal Spatial Data Base in Context-Aware Location-Based System", V. Venturini, J. Carbó, J.M. Molina. *MADRINET 2008*. Salamanca. Octubre 23-25, 2008.

"Development of user interfaces for video applications interaction", J.J. Durán, M.A. Patricio, J.M. Molina. *MADRINET 2008*. Salamanca. Octubre 23-25, 2008.

"Distributing Applied to Surveillance Application Track Transfer Protocol (TTP)", S.G. Escalante, M.A. Patricio, J.M. Molina. *MADRINET 2008*. Salamanca. Octubre 23-25, 2008.

"A parallelized and user oriented version of the Moment Method computer code MONURBS", Iván González, Abdelhamid Tayebi, Josefa Gómez, Santiago Cejudo y Felipe Cátedra. *Encuentro Ibérico de Electromagnetismo Computacional*, Chiclana de la Frontera, Cádiz, 22-24 de Octubre de 2008.

"Analysis and Design of a Multi-Agent System Using Gaia Methodology in an Airport Case of Use", N. Sánchez-Pi, J. Carbó, J. M. Molina. *7th Iberoamerican Workshop on Multi-Agent Systems en IBERAMIA 2008*. Lisboa, Portugal. 14-17 Octubre, 2008.

"Fuzzy Reputation in the Art Testbed", J. Carbó, J.M. Molina. Computational Intelligence in Decision and Control, Ed D. Ruan et al., in series on Computer Engineering and Information Science (World Scientific Proceedings Series), pp.829-834. Publicación de la ponencia en *8th International Conference FLINS 2008*, Madrid, España, Septiembre 21-24, 2008.

"Learning User Profile with Genetic Algorithm in Aml Applications", V. Venturini, J. Carbó, J. M. Molina en "Hybrid Artificial Intelligence Systems", Ed. E. Corchado et al. Lecture Notes in Artificial Intelligence 5271, pp. 124-131, Springer-Verlag, 2008. *Actas del 3rd International Workshop on Hybrid Artificial Intelligence Systems, HAIS 2008*. Burgos, Spain, 24-26 Septiembre de 2008.

"JADE/LEAP Agents in an Aml Domain", N. Sánchez, J. Carbó, J.M. Molina en "Hybrid Artificial Intelligence Systems", Ed. E. Corchado et al. Lecture Notes in Artificial Intelligence 5271, pp. 62-69, Springer-Verlag, 2008. *Actas del 3rd International Workshop on Hybrid Artificial Intelligence Systems, HAIS 2008*. Burgos, Spain, 24-26 Septiembre de 2008.

"An energy aware routing algorithm for ad hoc and sensor networks: concept and performance", A.M. Bernardos, J.R. Casar, P. Tarrío. *IEEE 17<sup>th</sup> Int. Symposium on Personal, Indoor and Mobile Radio Communications*, Helsinki, Finlandia, 11-14 Septiembre 2006.

"A Multi-Agent Architecture to Support Active Fusion in a Visual Sensor Network", F. Castanedo, J. García, M.A. Patricio, J.M. Molina. *Second ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC 2008)*, Stanford University, California, USA, Septiembre 7-11, 2008.

"A data fusion framework for context-aware mobile services", Bernardos, A.M., Tarrío, P., Casar, J.R. *Proceedings of the IEEE International Conf. in Multisensor Fusion and Integration for Intelligent Systems*, pp. 606-613, IEEE Computer Society. Seoul, South Korea. 20-22 August 2008.

"A fusion method based on Bluetooth and WLAN Technologies for Indoor Location", Aparicio, S., Pérez, J., Bernardos, A.M., Casar, J.R. *Proceedings of the International Conf. In Multisensor Fusion and Integration for Intelligent Systems*, pp. 487-491, IEEE Computer Society. Seoul, South Korea. 20-22 August 2008.

"Occlusion Management using a Context-based Tracking System", A.M. Sánchez, M.A. Patricio, J. García, J.M. Molina. *3rd Workshop on Artificial Intelligence Techniques for Ambient Intelligence (AITAmI'08) en la 18th European Conference on Artificial Intelligence (ECAI 2008)*, Patras, Grecia, Julio 21-22, 2008. (pp. 46-50).

"Introducing MONEDA: Scalable Multiobjective Optimization with a Neural Estimation of Distribution Algorithm", L. Martí, J. García, A. Berlanga, J.M. Molina. *Genetic and Evolutionary Computation Conference (GECCO 2008)*, Atlanta, USA, Julio 12-16, 2008. (pp 689-696).

"Computer code for the efficient calculation of the RCS of complex target considering multiple bounces", Lozano, L., Algar, M. J., Blanco, M., Gonzalez, I., Catedra, F.. *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE*, 5-11 July, 2008. Page(s):1 - 4, Digital Object Identifier 0.1109/APS.2008.4619957.

"Application of the Multilevel Fast Multipole Method to the analysis of holographic antennas", Catedra, F., Gonzalez, I., Tayebi, A., Gomez, J. *Antennas and Propagation Society International*

*Symposium, 2008. AP-S 2008. IEEE, 5-11 July, 2008. Page(s):1 - 4, Digital Object Identifier 10.1109/APS.2008.4619389.*

"Fast ray-tracing for computing n-bounces between curved surfaces", Catedra, Felipe; Lozano, Lorena; Gonzalez, Ivan; *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE, 5-11 July, 2008. Page(s):1 - 4 Digital Object Identifier 0.1109/APS.2008.4619472.*

"Efficient parallelization of a CBFM-MLFMA scheme for the computation of complex electromagnetic problems", Garcia, Eliseo; Delgado, Carlos; Gonzalez, Ivan; Catedra, Felipe; *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE. 5-11 July, 2008. Page(s):1 - 4 Digital Object Identifier 10.1109/APS.2008.4619602.*

"Design of an electromagnetic bandgap antenna", Catedra, Felipe; Tayebi, Abdelhamid; Gomez, Josefa; Gonzalez, Ivan; Gomez, Jose; *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE. 5-11 July, 2008. Page(s):1 - 4 Digital Object Identifier 10.1109/APS.2008.4620049.*

"Efficient approach for the analysis of large antennas by using windowed macro-basis functions", Delgado, Carlos; Garcia, Eliseo; Catedra, Felipe; *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE. 5-11 July, 2008. Page(s):1 - 4 Digital Object Identifier 10.1109/APS.2008.4619439.*

"Hierarchical scheme for the application of the Characteristic Basis Function Method based on a multilevel approach", Delgado, Carlos; Garcia, Eliseo; Catedra, Felipe; Mittra, Raj; *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE. 5-11 July, 2008. Page(s):1 - 4 Digital Object Identifier 10.1109/APS.2008.461943.*

"Depth-limited search applied to compute n-order reflections in the analysis of the RCS in large and complex targets", Lozano, Lorena; Algar, Ma Jesus; Blanco, Miguel; Gonzalez, Ivan; Catedra, Felipe; *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE. 5-11 July, 2008. Page(s):1 - 4 Digital Object Identifier 10.1109/APS.2008.4619954.*

"New version of FASANT code", Gonzalez, Ivan; Lozano, Lorena; Cejudo, Santiago; Saez de Adana, Francisco; Catedra, Felipe; *Antennas and Propagation Society International Symposium, 2008. AP-S 2008. IEEE. 5-11 July, 2008. Page(s):1 - 4 Digital Object Identifier 10.1109/APS.2008.4619474.*

"Analysis of Distributed Fusion Alternatives in Coordinated Vision Agents", F. Castanedo, J. García, M.A. Patricio, J.M. Molina. *11th International Conference on Information Fusion (FUSION 2008)*, pp 1279-1284, Colonia, Alemania, Junio 30- Julio 3, 2008.

"Solving Video-association Problem with Explicit Evaluation of Hypothesis Using EDAS", M. A. Patricio, J. Garcia, A. Berlanga, J. M Molina. *IEEE World Congress on Computational Intelligence (WCCI 2008)*, Hong Kong, China, Junio 1-6, 2008. (pp 2634-2641).

"Model Building Algorithms for Multiobjective Edas: Directions for Improvement", L. Martí, J. Garcia, A. Berlanga, J. M Molina. *IEEE World Congress on Computational Intelligence (WCCI 2008)*, Hong Kong, China, Junio 1-6, 2008. (pp 2848-2855).

"Agents detecting reputation noises with IMM Filtering", J. Carbó, J. García, J.M. Molina. Workshop on Trust in Agent Societies, en la *Conferencia Autonomous Agents and Multi-Agent Systems (AAMAS 2008)*, Estoril, Portugal, Mayo 12-18, 2008. (pp 7-14).

“An analysis of *context-awareness* in commercial mobile services”, Bernardos, A.M., Marcos, D., Casar, J.R. *Proc. of the 2008 International Conference on e-Business*, pp. 26-29, Oporto: INSTICC Press. 20 de Mayo, 2008.

“Scalable Continuous Multiobjective Optimization with a Neural-based Estimation of Distribution Algorithm”, L. Martí, J. García, A. Berlanga, J.M. Molina. “Applications of Evolutionary Computing. EvoWorkshops 2008: EvoCOMNET, EvoFIN, EvoHOT, EvoIASP, EvoMUSART, EvoNUM, EvoSTOC and EvoTransLog”. Ed. Giacobini et al. *Lecture Notes in Computer Science* 4974, pp. 535-544, Springer-Verlag, 2008. *Actas de EvoNUM, First European Workshop on Bio-inspired algorithms for continuous parameter optimisation, inside EvoWorkshops'08*. Nápoles, Italia, Marzo 26-28, 2008.

“Adjusting the Generalized Pareto Distribution with Evolution Strategies. An application to a Spanish motor liability insurance database”, M.J. Pérez, A. García, A. Berlanga, J.M. Molina. “Intelligent Data Engineering and Automated Learning -IDEAL 2007”. Ed. Yin et al. *Lecture Notes in Computer Science* 4881, pp. 1010-1019, Springer-Verlag, 2007. *Actas de 8th International Conference on Intelligent Data Engineering and Automated Learning (IDEAL 2007)*, Birmingham, Inglaterra, Diciembre 16-19, 2007.

“Reducing Positioning Errors through Space Averaging for Location Based Indoor Applications”, Martín, H., Tarrío, P., Casar, J.R. *Proc. Workshop on User-Centric Technologies and Applications*, pp. 59-67. Salamanca: Madrinet. 2007. 12-16 Noviembre 2007.

“An Indoor Location System based on Bluetooth and WLAN”, Pérez, J., Aparicio, S., Bernardos, A.M., Casar, J.R. *Proc. Workshop on User-Centric Technologies and Applications*, pp. 77-86. Salamanca: Madrinet. 2007. 12-16 Noviembre 2007.

“An RSS localization method based on parametric channel models”, Tarrío, P., Bernardos, A.M., Casar, J.R. *Proceedings of the International Conference on Sensor Technologies and Applications*, pp. 265-270, IEEE Computer Society. Valencia, October 14-20, 2007.

“An optimal strategy for power sensitive localization in ad hoc networks”, Tarrío, P., Bernardos, A.M., Casar, J.R. *Proceedings of 4th IEEE International Symposium on Wireless Communication Systems*, pp. 143-147, IEEE Computer Society. 17-19 October 2007, Trondheim, Norway 2007 .

“A transmission rate and energy design for power aware localization in ad hoc and sensor networks”, Tarrío, P., Bernardos, A.M., Casar, J.R. *Proceedings of the 18th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, 5pp., IEEE Computer Society. doi: 10.1109/PIMRC.2007.4394722. Athens, Greece, 3-6 September 2007.

“Building a framework to characterize location-based services”, Bernardos, A.M., Casar, J.R., Tarrío, P. *Proc. of the 2007 Int. Conf. and Exhibition on next generation mobile applications, services and technologies (NGMAST)*, pp. 110-118. IEEE Computer Society. Cardiff, Wales, UK, 12-14 Septiembre 2007.

“Bottom-Up/Top-Down Coordination in a Multiagent Visual Sensor Network”, F. Castanedo, M.A. Patricio, J. García, J.M. Molina, *IEEE International Conference on Advanced Video and Signal based Surveillance, AVSS 2007*, Londres, Inglaterra, Septiembre 5-7, 2007.

“Fast Ray-Tracing for Computing  $N$ -Bounces Between Flat Surfaces at Indoor/Outdoor Propagation”, L. Lozano, O. Gutiérrez, I. González, F. Cátedra. *Congreso ICEAA 2007*, Turin, Italia, Septiembre de 2007.

“Development of an Efficient Rigorous Technique Based on the Combination of CBFM and MLFMA to Solve Very Large Electromagnetic Problems”, F. Cátedra, E. García, C. Delgado, F. Sáez de Adana, R. Mittra. *Congreso ICEAA 2007*, Turin, Italia, Septiembre de 2007.

“Método Numérico Basado en la Combinación CBFM/MLFMA para el Análisis de Problemas Electromagnéticos Eléctricamente Grandes”, C. Delgado, E. García, F. Saez de Adana, M. F. Cátedra, R. Mittra. *XXII Symposium Nacional de la URSI*. Tenerife, Septiembre 2007. (4 pag. en CD).

“Knowledge-based system to define context in commercial applications”, N. Sánchez, V. Fuentes, J. Carbó, J.M. Molina. *8th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD2007) and 3rd ACIS International Workshop on Self-Assembling Wireless Networks (SAWN2007)*, Qingdao (Tsingtao), China, Julio 27-29, 2007. (pp 694-699).

“Tracking Filters using Kinematic Measurements”, J. Besada, G. de Miguel, A. Soto Ang J. García. *The 10<sup>th</sup> International Conference on Information Fusion*, Québec (Canadá), 9-12 Julio 2007.

“Video Tracking Improvement Using Context-Based Information”, A.M. Sánchez, M.A. Patricio, J. García, J.M. Molina. *10th International Conference on Information Fusion (FUSION 2007)*, Sesión Context Information in Data Fusion, Quebec, Canada, Julio 9-12, 2007.

“Model-Based Trajectory Reconstruction using IMM Smoothing and Motion Identification”, J. García, J. M. Molina, J. A. Besada, G. de Miguel. *10th International Conference on Information Fusion (FUSION 2007)*, Sesión Context Information in Data Fusion, Quebec, Canada, Julio 9-12, 2007.

“Robust Data Fusion in a Visual Sensor MultiAgent Architecture”, F. Castanedo, M.A. Patricio, J. García, J.M. Molina. *10th International Conference on Information Fusion (FUSION 2007)*, Sesión Context Information in Data Fusion, Quebec, Canada, Julio 9-12, 2007.

“A Feature-based Model to Analyse Mobile Location Services”, Bernardos, A.M., Tarrío, P., Casar, J.R. *Proceedings of the 6th Int. Conf. on the Management of Mobile Business*, pp. 59, IEEE Computer Society. Toronto, 9-11 July 2007.

“A Cumulative Evidential Stopping Criterion for Multiobjective Optimization Evolutionary Algorithms”. L. Martí, J. García, J.M. Molina, A. Berlanga. *Genetic and Evolutionary Computation Conference (GECCO 2007)*, Londres, Inglaterra, Julio 7 – 11, 2007.

“Application of High Frequencies Techniques for Location Systems”, M. Felipe Cátedra, José M. Gómez, Santiago F. Cejudo, Iván Gonzalez. *International Symposium on Electromagnetic Theory URSI - Commission B*, Ottawa, Canada, Julio 2007.

“Fast Ray-Tracing for Computing  $N$ -Bounces Between Surfaces of Complex Bodies”, M. Felipe Cátedra, Lorena Lozano, Iván González, Oscar Gutiérrez. *International Symposium on Electromagnetic Theory URSI - Commission B*, Ottawa, Canada, Julio 2007.

"Numerical Approach Based on CBFM/MLFMA for the Computation of Large Electromagnetic Problems", Carlos Delgado, Eliseo García, Francisco Sáez de Adana, Felipe Cátedra, Raj Mittra. *International Symposium on Electromagnetic Theory URSI - Commission B*, Ottawa, Canada, Julio 2007.

"Mobile Location Using Superresolution Algorithms", R. Gonzalez, F. Cátedra. *First Int. Work. on Tracking Computing Technologies*, Zagreb, San José, California, Julio, 2007.

"Análisis de Métodos de Seguimiento para Localización Inalámbrica en Interiores", J. Besada, Ana M. Bernardos, P. Tarrío, E. Collado, José R. Casar, *2nd Iberian Conf. on Information Systems and Technologies*, Porto, 21-23 June 2007.

"Desarrollo y Despliegue de Sistemas de Localización en WLAN Basados en Huella de Potencia", Collado, E., Bernardos, A.M., Tarrío, P., Besada, J.A., Casar, J.R. *Proc. of the 2nd Iberian Conference on Information Systems and Technologies*, Vol. 2, pp. 453-464, Oporto, Portugal, 21-23 de Junio 2007.

"Video Tracking Association Problem using Estimation of Distribution Algorithms in Complex Scenes", M. A. Patricio, J. García, A. Berlanga, J.M. Molina en "Nature Inspired Problem-Solving Methods in Knowledge Engineering". Ed. J. Mira & J. R. Alvarez. *Lecture Notes in Computer Science 4528*, pp 261-270, Springer-Verlag, 2007. *Actas de la 2ª Internacional Work-Conference on the Interplay between Natural and Artificial Computation (IWINAC-2007)*, Murcia, España, Junio 18-21, 2007.

"Context data to improve association in visual tracking systems", A. Sánchez, M.A. Patricio, J. García, J.M. Molina en "Nature Inspired Problem-Solving Methods in Knowledge Engineering". Ed. J. Mira & J. R. Alvarez. *Lecture Notes in Computer Science 4528*, pp 212-221, Springer-Verlag, 2007. *Actas de la 2ª Internacional Work-Conference on the Interplay between Natural and Artificial Computation (IWINAC-2007)*, Murcia, España, Junio 18-21, 2007.

"Comparison of Classifiers for Human Activity Recognition", O. Pérez, M. Piccardi, J. García, J. M. Molina. "Nature Inspired Problem-Solving Methods in Knowledge Engineering". Ed. J. Mira & J. R. Alvarez. *Lecture Notes in Computer Science 4528*, pp 192-201, Springer-Verlag, 2007. *Actas de la 2ª Internacional Work-Conference on the Interplay between Natural and Artificial Computation (IWINAC-2007)*, Murcia, España, Junio 18-21, 2007.

"A Numerically Efficient Technique for Orthogonalizing the Basis Functions Arising in the solution of Electromagnetic Scattering Problems Using the CBFM", C. Delgado, F. Cátedra, R. Mittra. *IEEE AP-S International Symposium on Antennas and Propagation*, Honolulu, Hawaii, USA, 10-15 June 2007 (ISBN: 1-4244-0878-4).

"Incorporating the Multilevel Fast Multipole Method into the Characteristic Basis Function Method to Solve Large Scattering and Radiation Problems", E. Garcia, C. Delgado, F. Sáez de Adana, F. Cátedra, R. Mittra. *IEEE AP-S International Symposium on Antennas and Propagation*, Honolulu, Hawaii, USA, 10-15 June 2007 (ISBN: 1-4244-0878-4).

"Swarm Particle Optimizacion Apply to the Searching of Reflection Points over NURBS Surfaces", Rubio del Saz, O. Gutierrez, F. Saez de Adana, F. Catedra. *IEEE AP-S International Symposium on Antennas and Propagation*, Honolulu, Hawaii, USA, 10-15 June 2007 (ISBN: 1-4244-0878-4).

“Application of the Multilevel Fast Multipole Method to the Analysis of Conformed Multilayered Periodic Structures”, González, F. Sáez de Adana, F. Cátedra. *IEEE AP-S International Symposium on Antennas and Propagation*, Honolulu, Hawaii, USA, 10-15 June 2007 (ISBN: 1-4244-0878-4).

“Iterative Method for Computing N-Reflections Between Flat Surfaces in the RCS Prediction of Complex Targets”, L. Lozano, I. González, O. Gutiérrez, J. M. Gómez, M. F. Cátedra. *IEEE AP-S International Symposium on Antennas and Propagation*, Honolulu, Hawaii, USA, 10-15 June 2007 (ISBN: 1-4244-0878-4).

“Application of Particle Swarm Optimization (PSO) to Single-Snapshot Direction of Arrival (DOA) Estimation”, D. Escot, D. Poyatos, I. González, F. Sáez de Adana, M. F. Cátedra. *IEEE AP-S International Symposium on Antennas and Propagation*, Honolulu, Hawaii, USA, 10-15 June 2007 (ISBN: 1-4244-0878-4).

“Design and Accuracy Analysis of a Power-Efficient TOA-based Location Scheme for Wireless Networks”, P. Tarrío, Ana M. Bernardos, José R. Casar and Juan A. Besada. *7<sup>th</sup> Int. Work. Applications and Services in Wireless Networks*, Santander, 24-25 Mayo 2007.

“Generic Context-Aware BDI Multi-Agent Framework with GAIA methodology”, V. Fuentes, N. Sanchez, J. Carbó, J.M. Molina. International Workshop on Agent-Based Ubiquitous Computing, en la *Conferencia Autonomous Agents and Multi-Agent Systems (AAMAS 2007)*. Hawaii, USA, Mayo 14-18, 2007.

“Coalition of Surveillance Agents. Cooperative Fusion Improvement in Surveillance Systems”, F. Castanedo, M.A. Patricio, J. García, J.M. Molina. International Workshop on Agent-Based Ubiquitous Computing, en la *Conferencia Autonomous Agents and Multi-Agent Systems (AAMAS 2007)*. Hawaii, USA, Mayo 14-18, 2007.

“Computer Tool for the Analysis and Design of Periodic Structures Taken Into Account their Real Size and Shape”, González, I., Garcia, E., Saez de Adana, F., Cátedra, F. *29TH ESA Antenna Workshop*, ESTEC, Noordwijk, The Netherlands, 18-20 April 2007.

“Comparison between Genetic Algorithms and Baum-Welch algorithm for the adjustment of HMM to Classify Human Activities”, O. Pérez, M. Piccardi, J. García, J. M. Molina. “Applications of Evolutionary Computing, EvoWorkshops 2007”. Ed. M. Giacobini et al. Lecture Notes in Computer Science 4448, pp 399-406, Springer-Verlag, 2007. Actas del *Nineth European Workshop on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP 2007)*, Valencia, España, Abril 11-13, 2007.

“MONURBS: A Paralelized Fast Multipole Multilevel Code for Analysing Complex Bodies Modelled By NURBS Surfaces”, I. González, E. García, F. Sáez de Adana, M. F. Cátedra ACES 2007 Symposium, Verona, Italia, Marzo, 2007.

“Analysis of tracking methods for wireless in-door localization”, Besada, J.A., Bernardos, A.M. Casar, J.R. *Proceedings of the International Symposium on Wireless Pervasive Computing, IEEE Computer Society*. doi: 10.1109/ISWPC.2007.342653. 2007. Puerto Rico, 5 a 7 Febrero 2007.

“A Taxonomy of Mobile Location-Based Services”, Bernardos, A.M., Tarrío, P., Casar, J.R. *Proceedings of the International Conference on e-Business*, pp. 114-120, Barcelona: INSTICC Press. 2007.

"Reputation in User Profiling in a Context-aware Multiagent System", V. Fuentes, N. Sanchez, J. Carbó, J.M. Molina. *Fourth European Workshop on Multi-Agent Systems EUMAS'06*, Lisboa, Portugal, 14-15 Diciembre, 2006.

"Data fusion architectures for autonomous vehicles using heterogeneous sensors", J. García, M. A. Patricio, J.M. Molina, A. Arjonilla, A.F. Wyttenbach. *3rd ESA Workshop on Satellite Navigation User Equipment Technologies (NAVITEC 2006)*, Noordwijk, Holanda, 11-13 Diciembre, 2006.

"Neuro-fuzzy Learning Applied to Improve the Trajectory Reconstruction Problem", Ó. Pérez, J. García, J.M. Molina. *International Conference on Computational Intelligence for Modelling, Control and Automation - CIMCA06*, Sydney, Australia 28 Noviembre – 1 Diciembre, 2006.

"Alternative Current Expressions for Overcoming Shadowing Treatment Arising in the Physical Optics Approach", Carlos Delgado, Felipe Cátedra, *European Conference on Antennas and Propagation (EuCAP 2006)*, Niza, Francia, Noviembre 2006.

"Extending Surveillance Systems Capabilities using BDI Cooperative Sensor Agents", F. Castanedo, M.A. Patricio, J. García, J.M. Molina. *4th ACM Multimedia Workshop on Video Surveillance and Sensor Networks*, Santa Barbara, CA, USA, Octubre 27, 2006. (pp 131-138).

"Generalization Capacity of LCS in Classification Data Mining Problems on Agents Environments", D. Sanchez, J.M.Molina, A. Sanchis. *V International Workshop on Practical Applications of Agents and Multiagent Systems*, Segovia, España. 19-20 Octubre, 2006. (pp 39-49).

"Heterogeneous Domain Ontology for Location based Information System in a Multi-Agent Framework", V. Fuentes, J. Carbó, J.M. Molina, "IDEAL 2006". Ed. E. Corchado et al. *Lecture Notes in Computer Science 4224*, pp 1199-1206, Springer-Verlag, 2006. *Actas de 7th Int. Conf. on Intelligent Data Eng. and Automated Learning, IDEAL 2006*. Burgos, España, 20-23 Septiembre, 2006.

"Evolutionary Computation Technique Applied to HSPF Model Calibration of a Spanish Watershed", F. Castanedo, M.A. Patricio, J.M. Molina, "IDEAL 2006". Ed. E. Corchado et al. *Lecture Notes in Computer Science 4224*, pp 216-223, Springer-Verlag, 2006. *Actas de 7th Int. Conf. on Intelligent Data Eng. and Automated Learning, IDEAL 2006*. Burgos, España, 20-23 Septiembre, 2006.

"Trajectory classification based on machine-learning techniques over tracking data", J. García, O. Pérez, J. M. Molina, G. de Miguel. Special Session "Intelligent Systems in Data Fusion Engineering" dentro de la *9th International Conference on Information Fusion FUSION 2006*, Florencia, Italia, 10-14 Julio, 2006.

"Fusion of Surveillance Information for Visual Sensor Networks", O. Pérez, M.A. Patricio, J. Carbó, J. García, J. M. Molina. Special Session "Intelligent Systems in Data Fusion Engineering" dentro de la *9th International Conference on Information Fusion FUSION 2006*, Florencia, Italia, 10-14 Julio, 2006.

"Combining the Characteristic Basis Function Method with Rooftops and Razor-Blade Testing Functions over NURBS Patches", Carlos Delgado, Felipe Cátedra, Raj Mittra. *European Conference on Antennas and Propagation (EuCAP 2006)*, Niza, Francia, Noviembre 2006.

"Efficient Social Routing in Sensor Fusion Networks", A.M. Bernardos, J.R. Casar, P. Tarrío. 9<sup>th</sup> *International Conference on Information Fusion*, Florencia, Italia, 10-13 Julio 2006.

"Robust tracking architecture for Mode-S Enhanced Surveillance", A. Soto, G. de Miguel, J.A. Besada. *The 9<sup>th</sup> International Conference on Information Fusion*, Florencia, Italia, 10-13 Julio 2006.

"Improving the Segmentation Stage of a Pedestrian Tracking Video-based System by means of Evolution Strategies", O. Pérez, M. A. Patricio, J. García, José M. Molina, "Applications of Evolutionary Computing, EvoWorkshops 2006". Ed. F. Rothlauf et al. *Lecture Notes in Computer Science* 3907, pp 438-449, Springer-Verlag, 2006. *Actas del Eighth European Workshop on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP 2006)*, Budapest, Hungría, Abril 10-12, 2006.

## Artículos en Revistas

---

"Analysis and optimization using GTD of WLAN for radio location in indoor scenarios based on the fingerprint technique" M. Felipe Cátedra, José M. Gómez, Santiago F. Cejudo, Iván González, *Radio Science*. (PENDIENTE PUBLICACIÓN).

"Application of the Characteristic Basis Function Method for the electromagnetic analysis of electrically large and complex bodies", Carlos Delgado, Eliseo García, Felipe Cátedra, Raj Mittra, *Applied Computational Electromagnetics Society Journal*.

"Generation of Characteristic Basis Functions Defined over Large Surfaces by Using a Multilevel Approach", Carlos Delgado, Eliseo García, Felipe Cátedra and Raj Mittra, *IEEE Transactions on Antennas & Propagation*, (PENDIENTE PUBLICACIÓN).

"A Meta-level Evolutionary Strategy for Many-criteria Design. Application to Improving Tracking Filters", I. Dotú, J. García, A. Berlanga, J.M. Molina. *Advanced Engineering Informatics*. (PENDIENTE PUBLICACIÓN).

"Robust Evolutionary Algorithms for Multiple Specifications Attainment, Applied to ATC Tracking Filters", J. García, A. Berlanga, J.M. Molina. *IEEE Transactions on Evolutionary Computation*. (PENDIENTE PUBLICACIÓN).

"An iterative solution for electrically large problems combining the Characteristic Basis Function Method and the Multilevel Fast Multipole Algorithm", Eliseo García, Carlos Delgado, Iván González, Felipe Cátedra, *IEEE Transactions on Antennas & Propagation*, Agosto 2008, pp 2363 – 2371.

"Efficient Multilevel Approach for the Generation of Characteristic Basis Functions for Large Scatterers", Carlos Delgado, Felipe Cátedra, Raj Mittra, *IEEE Transactions on Antennas & Propagation*, Julio 2008, pp 2134 – 2137.

"Monurbs: A Parallelized Fast Multipole Multilevel Code For Analysing Complex Bodies Modelled By NURBS Surfaces", I. González, E. García, F. Sáez De Adana, M.F. Cátedra, *Applied Computational Electromagnetics Society Journal*, Junio 2008, pp 134-142.

"Application of the Characteristic Basis Function Method Utilizing a Class of Basis and Testing Functions Defined on NURBS Patches", Carlos Delgado, Felipe Cátedra, Raj Mittra, *IEEE Transactions on Antennas & Propagation*, Marzo 2008, pp 784-791.

"New Physical Optics Approach for an Efficient Treatment of Multiple Bounces in Curved Bodies Defined by an Impedance Boundary Condition", Felipe Cátedra, Carlos Delgado, *IEEE Transactions on Antennas & Propagation*, 2008, pp 728-736.

"Accurate Representation of the Edge Behavior of Current When Using PO-Derived Characteristic Basis Functions". Carlos Delgado, Raj Mittra, Felipe Cátedra *IEEE Antennas and Wireless Propagation Letters*, VOL. 7, 2008, pp 43-45.

"Machine Learning Techniques for acquiring new Knowledge in Image Tracking", B. Rodríguez, O. Pérez, J. García, J. M. Molina. *Applied Artificial Intelligence*, vol. 22, nº 3, pp 266-282, 2008.

"Electric and magnetic dual meshes to improve Moment Method formulations", M. Felipe Cátedra, Oscar Gutiérrez, Iván González, Francisco Saez de Adana, *Applied Computational Electromagnetics Society Journal*, Noviembre 2007, pp 363-372.

"Analytical Field Calculation Involving Current Modes and Quadratic Phase Expressions", Carlos Delgado, José M. Gómez, M. Felipe Cátedra, *IEEE Transactions on Antennas & Propagation*, Enero 2007, pp 233 – 240.

"Video Tracking System Optimization using Evolution Strategies", J. García, O. Pérez, A. Berlanga, J.M. Molina. *International Journal of Imaging Systems and Technology*, Volume 17, Issue 2, pp 75-90, 2007.

"Avoiding Malicious Agents in E-Commerce using Fuzzy Recommendations", J. Carbó, J. M. Molina, J. Dávila. *Journal of Organizational Computing and Electronic Commerce*. Vol. 17, nº 2, pp 101-117, 2007.

"Multi-Agent Framework in Visual Sensor Networks", M.A. Patricio, J. Carbó, O. Pérez, J. García, J. M. Molina. *EURASIP Journal on Applied Signal Processing, special issue on Visual Sensor Networks*. Article ID 98639, 21 pages, 2007.

"Evolutionary algorithms in multiply-specified engineering. The MOEAs and WCES strategies", J. García, A. Berlanga, J.M. Molina. *Advanced Engineering Informatics*. Nº 21, pp 3-21, 2007.

## Capítulos de Libros

---

"Designing a Distributed Context-Aware Multi-Agent System", V. Fuentes, N. Sanchez, J. Carbó, J.M. Molina del texto Agent-Based Ubiquitous Computing. Series: Atlantis Ambient and Pervasive Intelligence - Vol. 1. E. Mangina, J. Carbó, J.M.Molina (Eds.). Ed. World Scientific. ISBN 978-90-78677-10-9.)

"Coalition of Surveillance Agents. Cooperative Fusion Improvement in Surveillance Systems", F. Castanedo, M.A. Patricio, J. García, J.M. Molina del texto Agent-Based Ubiquitous Computing. Series: Atlantis Ambient and Pervasive Intelligence - Vol. 1. E. Mangina, J. Carbó, J.M.Molina (Eds.). Ed. World Scientific. ISBN 978-90-78677-10-9.

“Ray Tracing Acceleration Techniques”, M. Felipe Cátedra, Iván González, Francisco Saez de Adana, Oscar Gutierrez, Lorena Lozano, WILEY Encyclopedia of Computer Science and Engineering, edited by Benjamin Wah. Septiembre 2008.

“Computational Intelligence in Visual Sensor Networks. Improving Video Processing Systems”, M. Patricio, A. Berlanga, O. Pérez, F. Castanedo, J. García, J.M. Molina del texto Computational Intelligence in Multimedia Proccesing. Recent Advances, capítulo 14, pp 351-377. Series: Studies in Computational Intelligence, Vol. 96. Hassanien, Aboul Ella; Abraham, Ajith; Kacprzyk, Janusz (Eds.). Springer 2008. ISBN: 978-3-540-76826-5.

“Ubiquitous computing, mobile environments” capítulo coordinado por J.M.Corchado, J.M.Molina y J. Bajo, del texto Issues in Multi-Agent Systems: The AgentCities.ES Experience, pp 33-59. Series: Whitestein Series in Software Agent Technologies and Autonomic Computing. A. Moreno y J. Pavón (Eds.). Ed. Birkhauser. Enero, 2008. ISBN: 978-3-7643-8542-2.

“An Evolutionary Approach for Designing Multi-Target Tracking video Systems”, J. García, O. Pérez, A. Berlanga, J.M. Molina, capítulo del libro Genetic and Evolutionary Computation Image Processing and Analysis, pp 441-466. EURASIP Book Series on Signal Processing and Communications, Volume 8. S. Cagnoni, E. Lutton y G. Olague (Eds.). Ed. Hindaway Publishing Corporation, 2007. ISBN-978-977-454-001-1.

“Trust and Reputation in e-services: Concepts, Models and Applications”, J. Carbó, J. García, J. M. Molina, capítulo del texto E-Service Intelligence- Methodologies, Technologies and Applications, pp 327-345. Ed. J. Lu, D. Ruan, G. Zhang. Editorial Springer Series in Computational Intelligence (SCI) nº 37, 2006. ISBN-3-540-37015-3.