Publications

1.- International journals (Quartile information taken from Scopus.com)

1. Pere Ferrera, Ivan de Prado, Eric Palacio, Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo: **Tuple MapReduce: Beyond classic MapReduce**. KAIS jornal (invited paper – to appear) (Q1 Information Systems)
2. Sara Montagna, Mirko Viroli, Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo and Franco Zambonelli: **Injecting Self-Organisation into Pervasive Service Ecosystems.** Mobile Networks and Applications (2012). (Q2 Computer Networks and Communications)
3. Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo, Sara Montagna, Mirko Viroli, Josep Lluis Arcos. **Description and composition of bio-inspired design patterns: a complete overview**. Natural Computing Journal (2012). Springer. (Invited Paper) (Q1 Computer Science)
4. Jose Luis Fernandez-Marquez, Josep Lluis Arcos and Giovanna Di Marzo Serugendo. **A Decentralized Approach for Detecting Dynamically Changing Diffuse Event Sources in Noisy WSN Environments.** Applied Artificial Intelligence Journal (2011). Taylor & Francis. (Invited paper) (Q4 Artificial Intelligence, Q3 Control and Systems Engineering)
5. Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo, and Josep Lluis Arcos. **Infrastructureless spatial storage algorithms.** In **TAAS:** ACM Transactions on Autonomous and Adaptive Systems (2011).ACM (Q1 Computer Science, Q1 Software)

2.- Books

1. Jose Luis Fernandez-Marquez. **Bio-inspired Mechanisms for Self-organising Systems.** CSIC Press. ISBN: 978-84-00-09602-1

3.- Book Chapters

1. Jose Luis Fernandez-Marquez. **Bio-inspired Mechanisms for Self-organising Systems.** 50 thesis IIIA-CSIC. CSIC press. 2013 (To appear)
2. Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo, Paul L. Snyder , Giuseppe Valetto. **A Pattern-Based Architectural Style for Self-Organizing Software Systems.** 2013 (To Appear)
3. Matteo Risoldi, Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo. **Assessing the resilience of self-organizing systems: a quantitative approach.** 2013 (to appear)
4. Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo, Sara Montagna. **BIO-CORE: Bio-Inspired Self-Organising Mechanisms Core.** LNICS - Bio-Inspired Models of Networks, Information, and Computing Systems. SPRINGER. isbn 978-3-642-32710-0. Pages 59-72. 2012

4.- Papers in international congresses with maximum impact factor following the Computing Research and Education Association of Australasia (CORE)

1. Pere Ferrera, Ivan de Prado, Eric Palacio, Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo: **Tuple MapReduce: Beyond classic MapReduce**. In **ICDM 2012:** Proceedings of the IEEE International Conference on Data Mining (To appear) (10.7% Acceptance rate)
2. Jose Luis Fernandez-Marquez, Josep Lluis Arcos. **Adapting particle swarm optimization in dynamic and noisy environments**. In **CEC2010:** Proceedings of IEEE Congress on Evolutionary Computation. 765-772
3. Jose Luis Fernandez-Marquez, Josep Lluís Arcos: **An evaporation mechanism for dynamic**

and noisy multimodal optimization. In **GECCO 2009:** Proceedings of the 11th Annual conference on Genetic and evolutionary computation. ACM, New York, NY, USA, 17-24. (Best Paper Award Nominated).

5.- Papers in congress with acceptance rate lower than 33%

1. Paul L. Snyder, Giuseppe Valetto, Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo. **Augmenting the Repertoire of Design Patterns for Self-Organized Software by Reverse Engineering a Bio-Inspired P2P System.** In **SASO 2012:** 4th IEEE International Conference on Self-Adaptive and Self-Organizing Systems. 199-204

2. Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo, Sara Montagna. **BIO-CORE: Bio-Inspired Self-Organising Mechanisms Core.** In **BIONETICS 2011**: 6th International ICST Conference on Bio-Inspired Models of Network, Information, and Computing Systems. LNICS - Bio-Inspired Models of Networks, Information, and Computing Systems. SPRINGER. 59-72 (published as a book chapter)

3. Jose Luis Fernandez-Marquez, Josep Lluís Arcos, Giovanna Di Marzo Serugendo: **Infrastructureless storage in dynamic environments.** In **SAC 2010:** Proceedings of the 25th Symposium On Applied Computing. ACM, New York, NY, USA 1334-1338

4. Jose Luis Fernandez-Marquez, Josep Lluís Arcos, Giovanna Di Marzo Serugendo. **A Decentralized Approach for Detecting Dynamically Changing Diffuse Event Sources in Noisy WSN Environments.** In **SASO 2010:** Second IEEE International Conference on Self-Adaptive and Self-Organizing Systems. 257-258

5. Jose Luis Fernandez-Marquez, Josep Lluís Arcos: **Keeping diversity when exploring dynamic environments.** In **SAC 2009**: Proceeding of the 24th Annual ACM Symposium on Applied Computing. ACM, New York, NY, USA, 1192-1196.

6. Jose Luis Fernandez-Marquez, Josep Lluís Arcos: **Evaporation as a Self-Adaptation Mechanism for PSO.**In **SASO 2008:** Second IEEE International Conference on Self-Adaptive and Self-Organizing Systems. 465-466

6.- Other Publications

1. Giovanna Di Marzo Serugendo, Regina Frei, and Jose Luis Fernandez-Marquez. **Chemically inspired rules for self-healing in Self-Organising Assembly Systems**. International Conference on Through-life Engineering Services (**TESConf**), 2012

2. Jose Luis Fernandez-Marquez, Giovanna Di Marzo Serugendo. **Modular design and Implementation of bio-inspired self-organising Systems**. In **Awareness Newsletter**. Autumn 2012. Issue 6. 6-7

3. Jose Luis Fernandez-Marquez, Graeme Stevenson, Akla-Esso Tchao, Juan Ye, Giovanna Di Marzo Serugendo and Simon Dobson. **Analysis of new gradient based aggregation algorithms for data-propagation in distributed Networks.** In **ASENSIS2012:** 1st International Workshop on Adaptive Service Ecosystems: Nature and Socially Inspired Solutions. IEEE. (To appear)

4. Graeme Stevenson, Jose Luis Fernandez-Marquez, Sara Montagna, Alberto Rosi, Juan Ye, Giovanna Di Marzo Serugendo, Mirko Viroli, Simon Dobson and Akla-Esso Tchao. **Towards Situated Awareness in Urban Networks: A Bio-inspired Approach.** In **ASENSIS2012:** 1st International Workshop on Adaptive Service Ecosystems: Nature and Socially Inspired Solutions. IEEE. (To appear)

5. Di Marzo Serugendo, G., Frei, R. and Fernandez Marques, J.L. (2012). **Chemically inspired rules for self-healing in Self-Organising Assembly Systems**. International Conference on Through-life Engineering Services (TESConf), Shrivenham, UK.

6. Sara Montagna, Mirko Viroli, Danilo Pianini, Jose Luis Fernandez-Marquez. **Towards a comprehensive approach to spontaneous self-composition in pervasive ecosystems.** In **WOA2012:** Proceedings of the 13th Workshop on Objects and Agents, CEUR-WS, 2012

7. Jose Luis Fernandez-Marquez, Josep Lluis Arcos, Giovanna Di Marzo Serugendo, Mirko Viroli, Sara Montagna. **Description and Composition of Bio-Inspired Design Patterns: The Gradient Case.** In **BADS2011**: 3rd Workshop on Bio-Inspired and Self-* Algorithms for Distributed Systems. ACM. 25-32

8. Jose Luis Fernandez-Marquez, Josep Lluis Arcos, Giovanna Di Marzo Serugendo, Matteo Casadei. **Description and Composition of Bio-Inspired Design Patterns: the Gossip Case.** In **EASe2011**: 8th IEEE Conference and Workshops on Engineering of Autonomic and Autonomous Systems. 87-96

9. Jose Luis Fernandez-Marquez, Josep Lluís Arcos, Giovanna Di Marzo Serugendo**. A Decentralized Approach for Detecting Dynamically Changing Diffuse Event Sources in Noisy WSN Environments.** In **EUMAS 2010:** 8th European Workshop on Multi-Agent Systems.

7.- Edited Books

1. Jose Luis Fernandez-Marquez, Sara Montagna, Andrea Omicini, Franco Zambonelli. Proceedings of the **First International Workshop on Adaptive Service Ecosystems: Nature and Socially Inspired Solutions.** 2012