tonipenya-alba

Education

2012–2015	**Ph.D. in Artificial Intelligence**, *Universitat de Barcelona, UB*.
2011–2012	**M.Sc. in Artificial Intelligence**, *Universitat Politecnica de Barcelona, UPC*.
2002–2009	**Bachelor in Computer Science**, *Autonomous University of Barcelona, UAB*.

Thesis

title	*Approximate algorithms for decentralized Supply Chain Formation*
advisors	Jesus Cerquides and Juan A. Rodriguez-Aguilar
research centre	Artificial Intelligence Research Institute (IIIA-CSIC)
qualification	*Cum laude*

Master thesis

title	*Scalable decentralized supply chain formation through binarized belief propagation.*
advisors	Jesus Cerquides and Juan A. Rodriguez-Aguilar
research centre	Artificial Intelligence Research Institute (IIIA-CSIC)
qualification	*Matricula d'honor*

Working Experience

2011–2012	**Predoctoral researcher**, *Artificial Intelligence Research Institute (IIIA-CSIC)*, Barcelona. Fostering robust business collaborations in uncertain scenarios.
2009–2010	**IT Manager**, *Lotary Watches Ltd.*, Hong Kong. Creation and supervision of the IT department for the asian branch of the company.
2007–2009	**Software Engineer**, *Festina Group*, Barcelona. Design and maintenance of several web applications for the technical and sales departments.
2005–2007	**Programmer**, *Multi-acces*, Barcelona. Tailor-made ERP system consultancy.
2003–2004	**Programmer**, *Visualmoon*, Barcelona. Graphical user interface and usability design.

Projects

2012–present	**COR: ROBUST COLLABORATIONS**, *Ministerio de Ciencia e Innovacion*, TIN2012-38876-C02-01, 76.869€.
2011–2012	**ENGINEERING SELF-* VIRTUALLY-EMBEDDED SYSTEMS**, *Ministerio de Ciencia e Innovacion*, TIN2009-14702-C02-02, 73.447€.

Agreement Technologies, *Ministerio de Ciencia y Tecnologia*, CSD2007-002, 4.385.000€.

Awards

2012   **ACIA's best AI work award.**, *Awarded by the Catalan Artificial Intelligence Association to the best master thesis on AI*, [http://www.acia.org/nodes/modules.php?name=news&idnew=107&idissue=27].

Reviews

The Computer Journal.

16th International Workshop on Agent-Mediated Electronic Commerce and Trading Agents Design and Analysis (AMEC/TADA2014)

International Joint Workshop on Optimisation in Multi-Agent Systems and Distributed Constraint Reasoning (OPTMAS-DCR2014).

11th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS2012).

6th International Workshop on Optimisation in Multi-Agent Systems (OPTMAS2013).

24th International Conference on Database and Expert Systems Applications (DEXA2013).

24th International Conference on Electronics, Communications and Computers (CONI-ELECOMP2014).

Languages

spanish   **Mother tongue**

catalan   **Mother tongue**

english*   **Listening** C1 **Reading** C1 **Spoken interaction** C1 **Spoken production** C1 **Writing** C1
     * Common European Framework of Reference for Languages

Publications

Toni Penya-Alba. *Approximate algorithms for decentralized Supply Chain Formation*. PhD thesis, University of Barcelona, 2014.

Toni Penya-Alba, Meritxell Vinyals, Jesus Cerquides, and Juan A. Rodriguez-Aguilar. Exploiting Max-Sum for the Decentralized Assembly of High-Valued Supply Chains. In *13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2014)*, 2014.

Toni Penya-Alba. From Supply Chain Formation to Multi-agent Coordination. In *12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2013)*, 2013.

Toni Penya-Alba, Boris Mikhaylov, Marc Pujol-Gonzalez, Marc Esteva, Bruno Rosell, Jesus Cerquides, Juan A Rodriguez-Aguilar, Carles Sierra, Carlos Carrascosa, Vicente Julian, Miguel Rebollo, M. Rodrigo, and Mateo Vasirani. An environment to build and track agent-based business collaborations. In Sascha Ossowski et al., editor, *Agreement Technologies (Law, Governance and Technology Series)*, pages 609–622. Springer, 2013.

Toni Penya-Alba, Meritxell Vinyals, Jesus Cerquides, and Juan A. Rodriguez-Aguilar. CHAINME: Fast Decentralized Finding of Better Supply Chains. In *12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2013)*, 2013.

Toni Penya-Alba, Meritxell Vinyals, Jesus Cerquides, and Juan A. Rodriguez-Aguilar. Social Value Propagation for Supply Chain Formation. In *6th International Workshop on Optimization in Multi-Agent Systems @AAMAS (OPTMAS 2013)*, 2013.

Toni Penya-Alba, Boris Mikhaylov, Marc Pujol, Bruno Rosell, Jesus Cerquides, and Juan A. Rodriguez-Aguilar. Tecnologia de subastas para la formacion automatizada de cadenas de suministro. *Novatica*, (218), july-august 2012.

Toni Penya-Alba. Master of Science Thesis. Scalable decentralized supply chain formation through binarized belief propagation. Master's thesis, UPC. Technical University of Catalonia, 2012.

Toni Penya-Alba, Meritxell Vinyals, Jesus Cerquides, and Juan A. Rodriguez-Aguilar. A scalable Message-Passing Algorithm for Supply Chain Formation. In *26th Conference on Artificial Intelligence (AAAI 2012)*, Toronto, 2012.

Toni Penya-Alba, Meritxell Vinyals, Jesus Cerquides, and Juan A. Rodriguez-Aguilar. RB-LBP: Scaling Up Decentralized supply chain formation. In *5th International Workshop on Optimization in Multi-Agent Systems @AAMAS (OPTMAS 2012)*, Valencia, 2012.

Toni Penya-Alba, Meritxell Vinyals, Jesus Cerquides, and Juan A. Rodriguez-Aguilar. Scalable decentralized supply chain formation through binarized belief propagation. In *11th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2012)*, pages 1275–1276, Valencia, 2012.

Toni Penya-Alba, Marc Pujol-Gonzalez, Marc Esteva, Bruno Rosell, Jesus Cerquides, Juan A Rodriguez-Aguilar, Carles Sierra, Carlos Carrascosa, Vicente Julian, Miguel Rebollo, M. Rodrigo, and Mateo Vasirani. ABC4MAS: Assembling Business Collaborations for MAS. In *2011 IEEE/WIC/ACM International Conferences on Web Intelligence and Intelligent Agent Technology (WI-IAT 2011)*, number 3, pages 431–432. IEEE, August 2011.