Marc Sánchez Artigas (Curriculum Vitae)

CONTACT Department of Computer Engineering and Mathematics

INFORMATION Universitat Rovira i Virgili Voice: (+34) 977 559 703 Avinguda Països Catalans, 26 Fax: (+34) 977 559 710

43007 Tarragona, Catalonia, Spain *E-mail:* marc.sanchez@urv.cat

REVISION DATA April 2017

CITIZENSHIP Spain

RESEARCH INTERESTS

My interests are in the area of cloud computing and large scale systems, mainly in P2P networking, distributed storage and middleware, and security in distributed systems.

VITA SKETCH

Marc Sánchez-Artigas received the PhD degree in 2009 from the Universitat Pompeu Fabra, Barcelona, Spain. During his PhD, he worked at Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. In the same year, he joined the Universitat Rovira i Virgili, first as a tenured-track lecturer, and now working as assistant professor. He received the Best Paper Award from IEEE LCN'07 and the Best Dataset Award from ACM IMC'15. He has published over 60 articles. Currently, he is actively involved in the coordination of several Spanish and European projects in Cloud storage.

EDUCATION

Accredited by the Catalan Agency for University Quality (AQU) as Assistant Professor, **May 2012**

Universitat Pompeu Fabra, Barcelona, Spain

PhD with European Mention, New Information Technologies and Communication, **January 2009**

- Thesis Title: A Hierarchical Framework for Peer-to-Peer Systems: Design and Optimizations
- Awarded with Summa Cum Laude Honours
- Advisor: Professor Pedro García López, Universitat Rovira i Virgili
- Advisor: Professor Miquel Oliver, Universitat Pompeu Fabra
- PhD board of examiners: Karl Aberer (*EPFL*, *Switzerland*), Alberto Montresor (*University of Trento, Italy*), Luis Garcés-Erice (*IBM*, *Switzerland*), Boris Bellalta (*UPF*, *Barcelona*) and Joan Manuel Marquès (*UOC*, *Barcelona*).
- Area of Study: P2P Networking

Universitat Rovira i Virgili, Tarragona, Catalonia, Spain

M.S., Computer Engineering,

September 2004

- Thesis Topic: Vulnerabilities and Security Threats in Peer-to-Peer Systems
- Advisor: Professor Pedro García López
- Area of Study: Distributed Systems

B.S., Computer Engineering,

September 2002

- Magna cum Laude, With Honors in Engineering
- Electronics specialization

AWARDS

• Mèrits de Recerca from the Catalan University Quality Assurance Agency (AQU), Generalitat de Catalunya

- Mèrits de Qualitat a la Recerca from Comisión Nacional Evaluadora de la Actividad Investigadora (CNEAI), Spanish Government
- Conference **Best Paper Award** of IEEE LCN'07, Dublin (Ireland)
- Best Dataset Award of ACM IMC'15, Tokyo (Japan)
- PhD with European Mention
- Four-year Predoctoral Fellowship from Generalitat de Calalunya January 2005
- B.S. With Honors in Computer Engineering, Universitat Rovira i Virgili

RESEARCH & **TEACHING** EXPERIENCE

Universitat Rovira i Virgili, Tarragona, Catalonia, Spain

Non-tenured Assistant Professor

September 2015 to present

Department of Computer Engineering and Maths (DEIM).

Tenure-Track Lecturer

September 2009 to August 2015

Department of Computer Engineering and Maths (DEIM).

Postdoc Researcher

January 2009 to June 2009

- Architecture and Telematic Services Research Group.
- Research Fellow (full-time) at Universitat Rovira i Virgili under the sponsorship of project P2PGRID, contract no. TIC2003-09288-C02-00, Spanish Ministry of Science and Education.

Research Assistant

October 2004 to January 2005

- Architecture and Telematic Services Research Group.
- Research Fellow (full-time) at Universitat Rovira i Virgili under the sponsorship of project Planet, contract no. TIC2003-09288-C02-00, Spanish Ministry of Science and Education.

Teaching

September 2005 to present Universitat Rovira i Virgili

- Programming Languages,
 - Years: 2008
 - Computer Management Engineering
- Fundamentals of Computing,

Universitat Rovira i Virgili

- Years: 2009, 2010
- Technical Industrial Engineering in Industrial Electronics
- Fundamentals of Programming Languages,
- Universitat Rovira i Virgili
- Years: 2014, 2013, 2012, 2011, 2010
- Degree of Computer Engineering
- · Open Systems,
- Universitat Rovira i Virgili
- Years: 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009. Computer Management Engineering
- Parallel Architectures II,

Universitat Rovira i Virgili

- Years: 2012, 2011, 2010
- Official Master's Degree in Information and Security Engineering
- Distributed Systems I,

Universitat Rovira i Virgili

- Years: 2013
- Official Master's Degree in Information and Security Engineering
- Distributed Systems,

Universitat Rovira i Virgili

- Years: 2017, 2016, 2015, 2014
- Degree of Computer Engineering
- Peer-to-peer Computing, Universitat Rovira i Virgili
 - Years: 2012, 2011, 2010, 2009, 2008, 2007, 2006, 2005
 - Official Master's Degree in Computer security and intelligent systems (2010)
- Digital Identity,
 - Years: 2017, 2016

Universitat Rovira i Virgili

- Official Interuniversity Master's Degree in Security of the Information Technologies and Communications (UOC/ UAB/ URV)
- Architectures for Distributed Systems,

Universitat Rovira i Virgili

- Years: 2017, 2016, 2015, 2014
- Official Master's Degree in Computer Engineering: Computer Security and Intelligent Systems (2013)

Member of Architecture and Telematic Services Research Group.

- $\bullet\,$ Consolidated research group by Generalitat of Catalunya, since $2014\,$
- Supported by AGAUR Agència de Gestió d'Ajuts Universitaris i de Recerca.

Universitat Oberta de Catalunya, Barcelona, Catalonia, Spain

Teaching as Consultor

- Large-scale distributed systems,
 - Years: 2015, 2014, 2013
 - Description: This course is compulsory within the Master's Degree in Computer Engineering, within the Information Technology module.
 - ECTS: 6

Fundació URV (FURV), Tarragona, Catalonia, Spain

Teaching as Collaborator

Java Programming Fundamentals for Professionals,

FURV

UOC

- Type: Formation Course
- Company: DCORE NETWORKS IBERIA, SLU
- Years: 2015, 2014, 2013, 2012, 2011
- **Description:** This course of 70 hours aimed at mastering the Java technologies for efficient web development.

RESEARCH STAYS Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland,

Within Laboratoire de Systèmes d'Information Répartis (LSIR)
(Distributed Information Systems Laboratory)

July 2008 - October 2008

• Under the supervision of professor Karl Aberer, head of LSIR group and director of Swiss National Research Center for Mobile Information and Communication Systems (NCCR-MICS, http://www.mics.ch).

INTERNATIONAL PUBLICATIONS

Journals JCR-ISI (19)

- 1. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "Cyclone: A Novel Methodology For Constructing Secure Multipath Overlays". IEEE Internet Computing, Vol. 9, no. 6, 2005, pp. 50-57.
- 2. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "TR-Clustering: Alleviating the Impact of False Clustering on P2P Overlay Networks", Computer Networks, Vol. 52, no. 17, 2008, pp. 3185-3204.
- 3. José Santa, Antonio Skarmeta, and Marc Sánchez-Artigas, "Architecture and evaluation of a unified V2V and V2I communication system based on cellular networks", Computer Communications, Vol. 31, no. 12, 2008, pp. 2850-2861.
- 4. Marc Sánchez-Artigas, Pedro García and Blas Herrera, "Exploring the Feasibility of Reputation Systems Under Churn", IEEE Communications Letters, Vol. 13. 2009, pp. 558-560.

- 5. Marc Sánchez-Artigas, Pedro García, "eSciGrid: A P2P-based e-science Grid for scalable and efficient data sharing", Future Generation Computer Systems, Vol. 26. 2010, pp. 704-719.
- 6. Pedro García, Michael W. Sobolewski, Marc Sánchez-Artigas, "Guest Editorial for the Special Issue on P2P Technologies for Emerging Wide-Area Collaborative Services and Applications", Computer Networks, Vol. 54. 2010, pp. 1923-1925.
- Marc Sánchez-Artigas, Jordi Pujol-Ahulló, Lluis Pamies-Juarez and Pedro García, "p2pWeb: An open, decentralized infrastructure of Web servers for sharing ephemeral Web content", Computer Networks, Vol. 54. 2010, pp. 1968-1985.
- 8. Marc Sánchez-Artigas and Pedro García, "Echo: A peer-to-peer clustering framework for improving communication in DHTs", J. Parallel Distrib. Comput., Vol. 70. 2010, pp. 126-143.
- 9. Marc Sánchez-Artigas, "The Impact of Churn on Uncertainty Decay in P2P Reputation Systems", IEEE Internet Computing, Vol. 14. 2010, pp. 23-30.
- 10. Lluis Pamies-Juarez, Pedro García, Marc Sánchez-Artigas and B. Herrera, "Towards the design of optimal data redundancy schemes for heterogeneous cloud storage infrastructures", Computer Networks, Vol. 55. 2011, pp. 1100-1113.
- 11. Raúl Gracia-Tinedo, Pedro García, Marc Sánchez-Artigas. "Sophia: A local trust system to secure key-based routing in non-deterministic DHTs", Journal of Parallel and Distributed Computing, Vol. 72. 2012, pp. 1696-1712.
- 12. Marc Sánchez-Artigas, Blas Herrera. "Understanding the effects of P2P dynamics on trust bootstrapping", Information Sciences, Vol. 236. 2013, pp. 33-55.
- 13. Marc Sánchez-Artigas. "Toward efficient data access privacy in the cloud", IEEE Communications Magazine, Vol. 11, no. 11, 2013, pp. 39-45.
- 14. Lluis Pamies-Juarez, Marc Sánchez-Artigas, Pedro García, Rubén Mondéjar-Andreu, Rahma Chaabouni. "On the interplay between data redundancy and retrieval times in P2P storage systems", Computer Networks, Vol. 59. 2014, pp. 1-16.
- 15. Xavi Leon, Rahma Chaabouni, Marc Sánchez-Artigas, Pedro García. "Transparently integrating BitTorrent in the data center with smart cloud seeding", IEEE Internet Computing, Vol. 18, no. 4, 2014, pp. 47-54.
- Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Aleix Ramirez-Baena, Adrián Moreno-Martínez, Xavi Leon, Pedro García. "Giving form to Social Cloud Storage through Experimentation: Issues and Insights", Future Generation Computer Systems, Vol. 40. 2014, pp. 1-16.
- 17. Marc Sánchez-Artigas, Blas Herrera. "Activity Stereotypes, or How to Cope with Disconnection during Trust Bootstrapping", IEEE Transactions on Parallel and Distributed Systems (TPDS), Vol. 26, no. 1, 2015, pp. 2-12.
- 18. Rahma Chaabouni, Marc Sánchez-Artigas, Pedro García. "The Power of Swarming in Personal Clouds Under Bandwidth Budget", Journal of Network and Computer Applications, Vol. 65, 2016, pp. 48-71.
- Raúl Gracia-Tinedo, Pedro García, Marc Sánchez-Artigas, Josep Sampé, Yosef Moatti, Eran Rom, Dalit Naor, Ramón Nou, Toni Cortés, William Oppermann, Pietro Michiardi, "IOStack: SoftwareDefined Object Storage", IEEE Internet Computing, Vol. 20, no. 3, 2016, pp. 10-18.

Relevant Conferences

- 1. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "Cyclone: A Novel Design Schema For Hierarchical DHTs". In Proc. of the 5th IEEE Conference on Peer-to-Peer Computing (P2P'05), Konstanz, Germany 2005.
- 2. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "On the Feasibility of Dynamic Superpeer Ratio Maintenance", In Proc. of the 8th IEEE Conference on Peer-to-Peer Computing (P2P'08), Aaschen, Germany, September, 2008.
- 3. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "A comparative study of Hierarchical DHTs Systems". In Proc. of the 32th IEEE Conference on Local Computer Networks (LCN'07). Conference Best Paper Award. Dublin, Ireland, October 2007.
- 4. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "Secure Forwarding in DHTs Is Redundancy the Key to Robustness?", In Proc. 14th International European Conference on Parallel and Distributed Computing (Euro-Par 2008), August 26-29, 2008, Las Palmas de Gran Canaria, Spain.
- 5. Jordi Pujol Ahulló, Pedro García, Marc Sánchez-Artigas and Antonio Skarmeta, "Supporting Geographical Queries onto DHTs". In Proc. of the 33rd IEEE Conference on Local Computer Networks (LCN'08), Montreal, Canada, 14-17 October 2008.
- Marc Sánchez-Artigas, Pedro García and Blas Herrera, "Exploring the Feasibility of Reputation Models for Improving P2P Routing under Churn", 15th International European Conference on Parallel and Distributed Computing (Euro-Par 2009), August 25-28, 2009, Delft, Netherlands.
- 7. Lluís Pàmies-Juarez, Pedro García and Marc Sánchez-Artigas, "Heterogeneity-Aware Erasure Codes for Peer-to-Peer Storage Systems", 38th International Conference on Parallel Processing (ICPP 2009), September 22-25, 2009, Vienna, Austria.
- 8. Marc Sánchez-Artigas and Pedro García, "On Routing in Distributed Hash Tables: Is Reputation a Shelter from Malicious Behavior and Churn?", In Proc. of the 9th IEEE Conference on Peer-to-Peer Computing (P2P'09), Seattle, USA, 2009
- 9. Marc Sánchez-Artigas, "Distributed Access Enforcement in P2P Networks: When Privacy Comes into Play", In Proc. of the 10th IEEE Conference on Peer-to-Peer Computing (P2P'10), 2010, pp. 1-10, Delft, Netherlands.
- 10. Lluís Pàmies-Juarez, Pedro García and Marc Sánchez-Artigas, "Availability and Redundancy in Harmony: Measuring Retrieval Times in P2P Storage Systems", In Proc. of the 10th IEEE Conference on Peer-to-Peer Computing (P2P'10), 2010, pp. 1-10, Delft, Netherlands.
- 11. Enrique Fernández-Casado, Marc Sánchez-Artigas and Pedro García, "Affluenza: Towards Universal Churn Generation", In Proc. of the 10th IEEE Conference on Peer-to-Peer Computing (P2P'10), 2010, pp. 1-2, Delft, Netherlands.
- 12. Marc Sánchez-Artigas and Enrique Fernández-Casado, "Evaluation of P2P Systems under Different Churn Models: Why We Should Bother", In Proc. 17th International European Conference on Parallel and Distributed Computing (Euro-Par 2011), 2011, pp. 541-553, Bordeaux, France.
- 13. Marc Sánchez-Artigas and Blas Herrera, "SocialHelpers: Introducing social trust to ameliorate churn in P2P reputation systems", In Proc. of the 11th IEEE

- Conference on Peer-to-Peer Computing (P2P'11), 2011, pp. 328-337, Kyoto, Japan.
- 14. Raúl Gracia-Tinedo, Pedro García and Marc Sánchez-Artigas, "Sophia: Local Trust for Securing Routing in DHTs", In Proc. of the 11th IEEE/ACM International Symposium on Cloud, Cluster and Grid Computing (CCGRID'11), 2011, pp. 372-381, NewPort Beach, CA, USA.
- 15. Lluís Pàmies-Juarez, Pedro García and Marc Sánchez-Artigas, "Enforcing fairness in P2P storage systems using asymmetric reciprocal exchanges", In Proc. of the 11th IEEE Conference on Peer-to-Peer Computing (P2P'11), 2011, pp. 122-131, Kyoto, Japan.
- 16. Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Pedro García, "Analysis of data availability in F2F storage systems: When correlations matter", In Proc. of the 12th IEEE Conference on Peer-to-Peer Computing (P2P'12), 2012, pp. 225-236, Tarragona, Spain.
- 17. Marc Sánchez-Artigas, "Disconnection punishment in trust bootstrapping: Benefits of activity stereotypes", In Proc. of the 12th IEEE Conference on Peer-to-Peer Computing (P2P'12), 2012, pp. 149-154, Tarragona, Spain.
- 18. Adrián Moreno-Martínez, Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Pedro García, "FRIENDBOX: A cloudified F2F storage application", In Proc. of the 12th IEEE Conference on Peer-to-Peer Computing (P2P'12), 2012, pp. 75-76, Tarragona, Spain.
- 19. Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Adrián Moreno-Martínez, Pedro García, "FriendBox: A Hybrid F2F Personal Storage Application", In Proc. of IEEE 5th International Conference on Cloud Computing (CLOUD'12), 2012, pp. 131-138, Honolulu, HI, USA.
- Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Pedro García, "F2Box: Cloudifying F2F Storage Systems with High Availability Correlation", In Proc. of IEEE 5th International Conference on Cloud Computing (CLOUD'12), 2012, pp. 123-130, Honolulu, HI, USA.
- 21. Rahma Chaabouni, Pedro García, Marc Sánchez-Artigas, Sandra Ferrer-Celma, Carlos Cebrian, "Boosting content delivery with BitTorrent in online cloud storage services", In Proc. of the 13th IEEE Conference on Peer-to-Peer Computing (P2P'13), 2013, pp. 1-2, Trento, Italy.
- 22. Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Pedro García, "Cloud-as-a-Gift: Effectively Exploiting Personal Cloud Free Accounts via REST APIs", In Proc. of IEEE 6th International Conference on Cloud Computing (CLOUD'13), 2013, pp. 621-628, Santa Clara, CA, USA.
- 23. Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Adrián Moreno-Martínez, Cristian Cotes, Pedro García, "Actively Measuring Personal Cloud Storage", In Proc. of IEEE 6th International Conference on Cloud Computing (CLOUD'13), 2013, pp. 301-308, Santa Clara, CA, USA.
- 24. Rahma Chaabouni, Marc Sánchez-Artigas, Pedro García, "Reducing costs in the personal cloud: Is bittorrent a better bet?", In Proc. of the 14th IEEE Conference on Peer-to-Peer Computing (P2P'14), 2014, pp. 1-10, London, UK.
- 25. Pedro García, Marc Sánchez-Artigas, Sergi Toda, Cristian Cotes, John Lenton, "StackSync: bringing elasticity to dropbox-like file synchronization", In Proc. of 15th Middleware Conference (Middleware'14), pp. 49-60, Bordeaux, France.
- 26. Raúl Gracia-Tinedo, Yongchao Tian, Josep Sampé, Hamza Harkous, John Lenton, Pedro García, Marc Sánchez-Artigas, Marko Vukolic, "Dissecting

- UbuntuOne: Autopsy of a Global-scale Personal Cloud Back-end", In Proc. of 2015 ACM Internet Measurement Conference (IMC'15), 2015, pp. 155-168, Tokyo, Japan.
- 27. Josep Sampé, Pedro García, Marc Sánchez-Artigas, "Vertigo: Programmable Micro-controllers for Software-Defined Object Storage", In Proc. of the 9th IEEE International Conference on Cloud Computing (CLOUD'16), pp .180-187, San Francisco, CA, USA.
- 28. Marc Sánchez-Artigas, "Oblivious RAM as a Substrate for Cloud Storage The Leakage Challenge Ahead", In Proc. of the 2016 ACM on Cloud Computing Security Workshop (CCSW'16), pp. 49-53, Vienna, Austria.
- 29. Rahma Chaabouni, Marc Sánchez-Artigas, Ala Chaabouni, Pedro García, "Improving the QoE in Personal Clouds with Cross-Swarm Bundling", In Proc. of the 41st IEEE Conference on Local Computer Networks (LCN '16) pp. 424-432, Dubai, UAE.
- 30. Raúl Gracia-Tinedo, Josep Sampé, Edgar Zamora-Gómez, Marc Sánchez-Artigas, Pedro García, Yosef Moatti, Eran Rom, "Crystal: Software-Defined Storage for Multi-Tenant Object Stores." In Proc. of 15th USENIX Conference on File and Storage Technologies (FAST'17), pp. 243-256, Santa Clara, CA, USA.

Other Conferences and Workshops

- Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "DECA: A Hierarchical Framework for DECentralized Aggregation in DHTs", 17th IFIP/IEEE International Workshop on Distributed Systems: Operations and Management Large Scale Management. 2006.
- 2. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "On the Relationship between Caching and Routing in DHTs", 2nd Intl. IEEE Workshop On Peer-to-Peer Computing and Autonomous Agents (P2PAA'07), Silicon Valley, USA, 2-5 November, 2007.
- 3. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "Making Replication Secure over Structured P2P Systems: Defending against Omission Attacks". 5th Intl. Workshop on Databases, Information Systems, and Peer-to-Peer Computing (DBISP2P'07) collocated with VLDB'07, Austria, September 2007.
- 4. Pedro García, Marc Sánchez-Artigas and Jordi Pujol Ahulló, "The p2pWeb model: a glue for the Web", 16th IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises 2007 (WETICE'07). Paris, France, June 18-20, 2007
- 5. Jordi Pujol, Pedro García, Marc Sánchez-Artigas, "SQS: Similarity Query Scheme for Peer-to-Peer Databases", IEEE Symposium on Computers and Communications (ISCC'07).
- 6. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "Subrange Caching: Handling Popular Range Queries in DHTs", 1st Conference on Data Management in Grid and P2P Systems (Globe'2008), Turin, Italy, September, 2008.
- 7. Marc Sánchez-Artigas, Pedro García and Antonio Skarmeta, "Bypass: Providing Secure DHT Routing through Bypassing Malicious Peers", IEEE Symposium on Computers and Communications (ISCC'08) July 6 9, 2008, Marrakech, Morocco.

- 8. Lluís Pàmies-Juarez, Pedro García and Marc Sánchez-Artigas, "Reciprocal Exchange for Resource Allocation in Peer-to-Peer Networks", IEEE WETICE 2008. Collaborative Peer-to-Peer Systems Workshop. June 23-25. Rome, Italy.
- 9. Marc Sánchez-Artigas, Marcel Arrufat, Gerard París, Pedro García, "SCOMET: A Middleware for Collaborative Working Environments in MANETs". Ubiquitous Computing and Communications Journal. ISSN 1992-8424.
- 10. Gerard París, Marcel Arrufat, Pedro García, Marc Sánchez-Artigas, "An Application Layer Multicast for Collaborative Scenarios: the OMCAST protocol", 7th International Conference on Networking (ICN 2008), April 13-18, 2008, Cancun, Mexico.
- 11. Lluís Pàmies-Juarez, Pedro García and Marc Sánchez-Artigas, "Rewarding Stability in Peer-to-Peer Backup Systems", 16th IEEE International Conference on Networks (ICON 2008). New Delhi, India.
- 12. Jordi Pujol-Ahulló, Pedro García, Marc Sánchez-Artigas, and Marcel Arrufat-Arias, "An extensible simulation tool for overlay networks and services", 24th Annual ACM Symposium on Applied Computing (SAC'09). Honolulu, Hawaii, USA, March 8-12 2009, Pages 2072-2076.
- 13. Raúl Gracia-Tinedo, Marc Sánchez-Artigas, Pedro García, "eWave: Leveraging Energy-Awareness for In-line Deduplication Clusters", International Conference on Systems and Storage (SYSTOR'14), 2014, pp. 6:1-6:11, Haifa, Israel.

TECHNICAL REPORTS

- 1 Jordi Pujol Ahulló, Pedro García López, Marc Sánchez-Artigas, Marcel Arrufat, Gerard París, Max Bruchmann, "PlanetSim: An extensible framework for overlay network and services simulations", Technical Report DEIM-RR-08-002. URV. January 11, 2008.
- 2 Jordi Pujol Ahulló, Marc Sánchez-Artigas, Pedro García López, Antonio G. Skarmeta, "GTAG: Supporting Geographical Queries onto DHTs". Technical Report DEIM-RR-08-001. URV. January 16, 2008
- 3 Pierre Sutra, Etienne Rivière, Cristian Cotes, Marc Sánchez-Artigas, Pedro García López, Emmanuel Bernard, William Burns, Galder Zamarreño, "Atomic Object Factory: Efficient, Consistent and Dependable Support for Distributed Objects", [Research Report], 2016. <hal-01318706>.

PHD THESES Advised

1 — Rahma Chaabouni

May 2013 to January 2017

- Title: Efficient BitTorrent-like Content Distribution for Cloud Storage Services.
- Co-advisor: Pedro García López.
- Mark: Excellent.
- Area: Content distribution, Cloud storage.

2 — Raul Gracia-Tinedo

September 2011 to July 2015

- Title: On the Design and Optimization of Heterogeneous Distributed Storage Systems.
- Co-advisor: Pedro García López.
- Mark: Excellent cum laude.
- Area: Distributed and Cloud storage.

3 — Lluis Pamies-Juarez

September 2007 to July 2011

- Title: On the Design and Optimization of Heterogeneous Distributed Storage Systems.
- Co-advisor: Pedro García López.
- Mark: Excellent cum laude.
- Area: Distributed storage systems.

Professional Service

Membership:

- Member, IEEE (Institute of Electrical and Electronics Engineers), since 2012.
- Member of the IEEE Communications Society.

Organizer:

- 2nd URV Doctoral Workshop in Computer Science and Mathematics, DCSM-2015, November 15, Tarragona, Spain.
- 12th IEEE International Conference on Peer-to-Peer Computing (P2P'12), September 2012, Tarragona, Spain.

Reviewer/TPC:

- 22nd IEEE International Parallel and Distributed Processing Symposium (IPDPS'08).
- 4th Workshop on Collaborative Peer-to-Peer Systems (COPS'08).
- 5th Workshop on Collaborative Peer-to-Peer Systems (COPS'09).
- 15th International European Conference on Parallel and Distributed Computing (Euro-Par'09).
- 9th International Conference on Peer-to-Peer Computing (P2P'09).
- 15th International EUNICE Workshop 2009 Internet of the Future.
- 12th IEEE International Conference on Peer-to-Peer Computing (P2P'12).
- 13th IEEE International Conference on Peer-to-Peer Computing (P2P'13).
- 13th IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS'13).
- 14th IEEE International Conference on Peer-to-Peer Computing (P2P'14).
- 15th IEEE International Conference on Peer-to-Peer Computing (P2P'15).
- 10th IEEE Workshop on Network Measurements (WNM'16).
- Computer Networks Journal, Elsevier.
- IEEE Communications Letters.
- IEEE Transactions on Parallel and Distributed Systems.
- Information Sciences, Elsevier.

Guest Editor:

- Special Issue on P2P Technologies for Emerging Wide-Area Collaborative Services and Applications, Computer Networks Journal, Elsevier.
- URL: http://www.sciencedirect.com/science/journal/13891286/54/12

Invited Talks:

• UPF doctoral seminars,

May 26, 2009

- Title: Biased peer-to-peer overlay construction: an opportunity for the ISPs
- Area: P2P Networking and Internet Service Providers (ISPs)

RESEARCH PROJECTS

1 — IOStack: Software Defined Storage for Big Data 2015 to present Funded by the European Commission — H2020 Research and Innovation.

Contract No. H2020-644182. PI URV: Pedro García and Marc Sánchez-Artigas.

Project coordinator: URV. Overall Budget: 440.900,00€.

2 — Software Defined Edge Clouds

2017 to present

Funded by the Spanish Ministry of Economy and Competitiveness (MEYC), Contract No. TIN2016-77836-C2-1-R. PI URV: Pedro García. and Marc Sánchez-Artigas

Overall Budget: 72.700,00€.

3 — Cloud4Comm: Servicios cloud y redes comunitarias

2014 to 2016

Funded by the Spanish Ministry of Economy and Competitiveness (MEYC), Contract No. TIN2013-47245-C2-2-R. PI URV: Pedro García. Overall Budget: 74.000,00€.

4 — CloudSpaces: Open Service Platform for the Next Generation of Personal Clouds 2012 to 2015

Funded by the European Commission — 7th Framework Program. Contract No. FP7-317555. PI URV: Pedro García. <u>Project coordinator: URV.</u>
Overall Budget: 558.342,00€.

- 5 **RealCloud: Real Data Center Cloud Services and Environment** 2011 to 2013 Funded by the Spanish Ministry of Science and Innovation (MCIN), Contract No. IPT-2011-1232-430000. PI URV: Pedro García. Overall Budget: 114.952,04€.
- 6 DELFIN:Selfadapting Decentralized Systems for the Future Internet 2011 to 2014

Tunded by the Spanish Ministry of Science and Innovation (MCIN), Contract No. TIN2010-20140-C03-03. PI URV: Pedro García. Overall Budget: 18.800,00€.

7 — NEUROLEARNING: Sistema telemédico de Intervención Neuropsicológica basado en Entornos Virtuales Interactivos 2008 to 2011

Funded by the Spanish Ministry of Industry, Turism and Commerce (MITC), Contract No. TSI-020501-2008-154. PI URV: Maria Ferré Bergadà. Overall Budget: 67.972,00€.

- 8 **P2PGRID: Self-adjusting peer-to-peer and Grid Systems**Funded by the Spanish Ministry of Science and Technology (MCYT), Contract No. TIN2007-68050-C03. PI URV: Pedro García. Overall Budget: 57.000,00€.
- 9 POPEYE: Professional Peer Environment Beyond Edge Computing 2006 to 2008

Specific Targeted Research Project (STREP) funded by the EU — 6th Framework Program, IST priority. Contract No. IST-2006-034241. PI URV: Pedro García. Overall Budget: $183.565,00 \in$.

10 — PLANET: Plataforma de colaboración aumentada para el acceso y distribución de contenidos educativos 2003 to 2006

Funded by the Spanish Ministry of Science and Technology (MCYT), Contract No. TIC2003-09288-C02-00. PI URV: Pedro García. Overall Budget: 110.400,00€.

OTHER FUNDING

- 1 Java Programming Fundamentals for Professionals, 2011 to 2015 Funded by DCORE NETWORKS IBERIA, SLU (T-Systems) for several formation courses under the agreements: F11039N (Budget: 8.344,00 €), F12012N (Overall Budget: 7.693,00 €), F12082N (Overall Budget: 8.440,00 €), F14027N (Overall Budget: 8.980,00 €), and F14035N (Overall Budget: 7.345,00 €).
- 2 Asesoramiento en Tecnologías de Almacenamiento Seguro en la Nube (Secure Cloud Storage)
 2013
 Funded by TISSAT —Tecnología e Ingenieriía de Sistemas y Servicios Avanzados de Telecomunicaciones S.A. PI URV: Pedro García. Overall Budget: 10.000,00€.
- 3 IEEE International Conference on P2P Computing 2012 (Tarragona) 2012 Funded by UROV Universitat Rovira i Virgili. Contract no. 2012OCO-18. PI URV: Marc Sánchez-Artigas. Overall Budget: 990,68€.

MASTER THESIS SUPERVISION

- 1 TR 165: Developing a bundling mechanism to make peer-assisted file synchronization feasible. Raúl Saiz. *Universitat Rovira i Virgili*. September 2014. Supervisors: Marc Sánchez-Artigas.
- 2 **TR 166:** Benchmarking personal cloud storage systems. Eduard Hernández. *Universitat Rovira i Virgili*. September 2014. Supervisors: Marc Sánchez-Artigas.

LANGUAGES Catalan, Spanish and English.