

Paul Leger, PhD

Associate Professor & Pragmatics Lab Founder
Civil Engineering School
Catholic University of the North
Larrondo 1281, Of. 316, Coquimbo, Chile

Email: pleger@ucn.cl
Homepage: <http://pleger.cl/>
LinkedIn: <https://cl.linkedin.com/in/plegerm>

Personal

Name: Paul Leger
Hometown: Coquimbo, Chile
Nationality: Chilean



Education

Visiting Researcher. Tokyo Institute of Technology, Japan, 2019 (6 months); Cauca University, Colombia, 2018 (2 months); Shibaura Institute of Technology, Japan, 2013-2014 (4-2 months); École des mines de Nantes, France, 2010 (2 months).

PhD in Computer Science, University of Chile, 2006 - 2012.
Subject: Opening Up Trace-Based Mechanisms.
Advisor: Éric Tanter (<http://pleiad.cl/etanter>).

Engineering degree in Computer Science, University of La Serena, 1999 - 2005 (July).

B.Sc. in Computing Science, University of La Serena, 1999 - 2005 (April).

Activities and Keywords of Research

Activities

Pragmatics. Founder of a research laboratory in programming languages, software engineering, and simulations of agent-based models, <http://pragmatics-lab.com>.

Keywords

Programming languages. Modularity, abstractions, different approaches, and from the functional programming to novel programming approaches.

Software engineering. Developing tools to help programmers in software construction.

Applied agent-based simulations. Lately, interested in the application of agent-based simulations to predict user behaviors in different environments (*e.g.*, social network sites like Twitter).

Scientific & Academic Services

Academic Services

Master Program Committee Member. Master in Computer Science, Catholic University of the North, 2014 - present.

Master Program Committee Member. Master of Science in Business, Catholic University of the North, 2016 - 2018.

Department Representative. Representative of Administration and Information Systems, Catholic University of the North, 2016 - 2018.

Undergraduate Program Committee Member. Professor Committee of the undergraduate program Information and Management Control Engineering, Catholic University of the North, 2014 - 2018.

Coordinator. Coordinator of the Information Technology line, Information and Management Control Engineer, Catholic University of the North, 2014 - 2017.

Scientific Services

Funded Projects:

- Principal Researcher. Fondef-VIU (Conicyt) "Análisis y Valorización de datos de comportamiento del usuario captados durante visitas a pilotos inmobiliarios y utilizando realidad virtual" (VIU19P0189).

Organizer:

- Workshop on Context-Oriented Programming and Advanced Modularity (COP), European Conference on Object-Oriented Programming (ECOOP), 2020, <https://2020.ecoop.org/home/COP-2020>. **SCOPUS.**

- Track on Modularization for Practical Software Engineering (MPSE) (x 3), International Conference on Bio-inspired Information and Communications Technologies, 2014 - 2015, <http://bionetics.org>. **SCOPUS.**

Journal Editor:

- Guest Editor on International Journal of Software Engineering and Knowledge Engineering, 2015, ISSN: 1793-6403. **JCR-ISI.**

Journal Reviewer:

- Soft Computing, 2019, ISSN: 1432-7643. **JCR-ISI.**

- Journal of Simulation, 2019, ISSN: 1747-7778. **JCR-ISI.**

- IEEE Latin America Transactions (x 3), 2018-2019, ISSN: 1548-0992. **JCR-ISI.**

- Ingeniare (x 2), 2018, ISSN: 0718-3305. **SCOPUS.**

- Formación Universitaria (FU), 2018, ISSN: 0718-5006. **SCOPUS.**

- Journal of Technology Management & Innovation (JOTMI), 2015, ISSN: 0718-2724. **SCOPUS.**

- Spanish Journal of Marketing (SJME), 2017, ISSN: 2444-9695.

Chair:

- (Co-)Chair International Conference of the Chilean Computer Science Society (SCCC), 2020, **NOTE: the most important computer science event in Chile. SCOPUS.**

- (Co-)Chair on Context-Oriented Programming and Advanced Modularity (COP), European Conference on Object-Oriented Programming (ECOOP), 2020, <https://2020.ecoop.org>. **SCOPUS.**

- Track Chair on Modularization for Practical Software Engineering (MPSE) (x 3), International Conference on Bio-inspired Information and Communications Technologies, 2014 - 2015, <http://bionetics.org>. **SCOPUS.**

- Session Chair on Track on Software Engineering (SE), ACM Symposium on Applied Computing (SAC), 2017, <http://selab.uos.ac.kr/sacse17>. **SCOPUS**.
- Publicity Chair on 9th International Conference on Bio-inspired Information and Communications Technologies, 2015, <http://bionetics.org>. **SCOPUS**.

Program Committee Member:

- ACM Symposium on Applied Computing (SAC) - Track on Software Engineering (SE) (x 4), 2015 - 2018, <http://selab.uos.ac.kr/sacse18>. **SCOPUS**.
- New Ideas or Emerging Results (NIER) and Tool Demo (TD), Third IEEE Working Conference on Software Visualization (VISSOFT), 2015, <http://vissoft.dcc.uchile.cl>.
- Congreso Internacional de Computación e Informática del Norte de Chile (INFONOR) (x 6), 2013-2017 & 2019, <http://infonor-chile.cl>.

Evaluator:

- Evaluator on Short Internship Projects (MEC), CONICYT, 2014, <http://www.conicyt.cl/pai>.
- Research Project Pontificia Universidad Católica de Valparaíso, 2018, <http://www.pucv.cl>.
- External Reviewer of Master Thesis: “Verificación progresiva de programas en Dafny”, Escuela de Ingeniería, Pontificia Universidad Católica de Valparaíso, 2018, <http://http://pucv.cl/>.
- External Reviewer of Master Thesis: “Discovering Memory Optimization Opportunities by Analyzing Shareable Objects”, Computer Science Department (DCC), University of Chile, 2017, <http://www.uchile.cl>.

Invited Speaker:

- “La carrera académica universitaria: Desde cómo comenzar hasta cómo permanecer en ella”. Universities:
 - * University of La Serena (ULS), Chile, May, 2016.
 - * Cauca University (Unicauca), Colombia, February, 2018.
- “Modularity, Crosscutting Concerns, and AOP with its applications”. Universities:
 - * University of Massachusetts Boston (UMASS), USA, December, 2014.
 - * University of La Serena (ULS), Chile, August, 2014.
 - * University of Playa Ancha (UPLA), Chile, August, 2015.
 - * San Pablo Catholic University (UCSP), Peru, July, 2016.
 - * Cauca University (Unicauca), Colombia, March, 2018.

Academic Experience

Lecturer

Postgraduate (total 5)

Thesis Proposal, Catholic University of the North, 2019.

Advanced Topics in Management of Information Technology, Catholic University of the North, 2019.

Research Methodology, Catholic University of the North, 2018.

Advanced Design Patterns, Diego Portales University, 2011.

Objects and Aspects, Diego Portales University, 2010.

Undergraduate (total 30)

Introduction to Research in Computer Science, Catholic University of the North, 2019.
Data Structure (x 2), Catholic University of the North, 2018 - 2019.
Management Information System Development, Catholic University of the North, 2018.
Communication Elements (x 5), Catholic University of the North, 2014 - 2018.
Programming (x 3), Catholic University of the North, 2013 - 2016.
Process Modelling (x 3), Catholic University of the North, 2013 - 2016.
Data Base (x 4), Catholic University of the North, 2013 - 2017.
Programming and Database. Catholic University of the North, 2012.
Languages and Paradigms. University of Talca, 2012.
Advanced Programming. Diego Portales University, 2011.
Programming (x 5). Diego Portales University, 2010 - 2012.
Computing I (x 3). Diego Portales University, 2009.

Thesis Advising (total 20)

Postgraduate (x 3), Catholic University of the North, 2017 - present.
Undergraduate (x 17), Catholic University of the North, 2013 - present.

Evaluations as Professor

Catholic University of the North (Three consecutive times) Best professor evaluation for undergrad teaching in School of Business Studies, 2012 - 2014.

Diego Portales University (Spanish) "Paul dictó varios cursos (incluso cursos de postgrado) en nuestra carrera, él mostró cercanía con los alumnos y capacidad suficiente para motivarlos a interiorizarse en la materia", Jonathan Frez (jonathan.frez@udp.cl), Teaching Management, of School of Computer Science and Telecommunications Engineer telecommunications.

University of Talca (Spanish) "Vistos los resultados de la encuesta, el prof. Leger obtiene puntaje por sobre el promedio del Departamento y de la Facultad en cada uno de los ítems de la encuesta...". Ruth Garrido (rgarrido@utalca.cl), Head of School of Computer Science Engineer.

Publications

My research profile IDs on *Web of Science* and *Scopus* are Q-6174-2017 and 36087550600.

NOTE: For conferences/workshops, I use the CORE ranking, which belongs **CO**mputing **RE**search and Education Association of Austral-asia. CORE is available on <http://portal.core.edu.au/conf-ranks>.

Ph.D

Leger, Paul (2012). "Opening Up Trace-Based Mechanisms — Application to Context-Aware Systems". PhD thesis. University of Chile, pp. 1–180.

Journals (JCR-ISI/SCOPUS/ESCI/SCIELO)

- Araya, Natalia, Paul Leger, and Manuela López (2019). "Whom do I Choose to Diffuse Information on Twitter? An Agent-Based Model Approach". In: *IEEE Latin America Transactions* 17.4, pp. 677–683. DOI: 10.1109/TLA.2019.8891933. **JCR-ISI**.
- Figuerola, Ismael, Cristhy Jiménez, Hector Allende-Cid, and Paul Leger (2019). "Developing Usability Heuristics with PROMETHEUS: A Case Study in Virtual Learning Environments". In: *Computer Standards & Interfaces* 65, pp. 132–142. DOI: 10.1016/j.csi.2019.03.003. **JCR-ISI**.
- Rojas, Felipe, Andrea Fernández, Paulina Gutierrez, and Paul Leger (2019). "Identificando Brechas de Uso de Sistemas de Información (SIA) para Micro, Pequeñas y Medianas Empresas en La Serena y Coquimbo". In: *Revista de Investigación Aplicada en Ciencias Empresariales (RIACE)* 8.1, pp. 77–113. DOI: 10.22370/riace.2019.8.1.2073. **LATINDEX**.
- Fukuda, Hiroaki, Paul Leger, and Namiki Keita (2016). "CMSN: An Efficient and Effective Agent Lookup for Mobile Agent Middleware". In: *Journal of Universal Computer Science* 22.8, pp. 1072–1096. DOI: 10.3217/jucs-022-08-1072. **JCR-ISI**.
- Leger, Paul, Manuela López, Carmen Hildago-Alcázar, and Hiroaki Fukuda (2016). "An Open Agent-Based Model to Simulate the Effect of WOM Marketing Campaigns". In: *EAI Endorsed Transactions on Smart Cities*. DOI: 10.4108/eai.3-12-2015.2262533.
- Rocha, Wiliam, Hiroaki Fukuda, and Paul Leger (2016). "Modular Asynchronous Web Programming: Advantages and Challenges". In: *EAI Endorsed Transactions on Collaborative Computing* 2.8. DOI: 10.4108/eai.3-12-2015.2262472.
- Vidal, Cristian, David Benavides, Paul Leger, José Galindo, and Hiroaki Fukuda (2016). "Mixing of Join Point Interfaces and Feature-Oriented Programming for Modular Software Product Line". In: *EAI Endorsed Transactions on Scalable Information Systems* 3.10. DOI: 10.4108/eai.3-12-2015.2262534. **ESCI**.
- Fukuda, Hiroaki and Paul Leger (2015c). "SyncAS: A Virtual Block Approach to Tame Asynchronous Programming". In: *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)* 25.5, pp. 887–907. DOI: 10.1142/S0218194015400252. **JCR-ISI**.
- Leger, Paul, Éric Tanter, and Hiroaki Fukuda (2015). "An Expressive Stateful Aspect Language". In: *Science of Computer Programming* 102.0, pp. 108–141. DOI: 10.1016/j.scico.2015.02.001. **JCR-ISI**.
- Liu, Shih-Hsi, Junichi Suzuki, Paul Leger, Hiroaki Fukuda, and Marjan Mernik (2015). "Featured Topic Issue - Emerging Synergies of Artificial Intelligence and Software Engineering". In: *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)* 25.5, pp. 803–805. DOI: 10.1142/S0218194015020040. **JCR-ISI**.
- Leger, Paul, Grecia Gálvez, Lino Cubillos, Diego Cosmelli, Milton Inostroza, Éric Tanter, Gina Luci, and Jorge Soto Andrade (2014). "ECOCAM, un sistema computacional adaptable al contexto para promover estrategias de cálculo mental: características de su diseño y resultados preliminares". In: *Revista Latinoamericana de Investigación en Matemática Educativa* 17.1, pp. 33–58. DOI: 10.12802/relime.13.1712. **JCR-ISI**.
- Ramírez, Pablo, Paul Leger, and Andres Vallone (2014). "Un Modelo Flexible para la Simulación de Distribución de Ciudades". In: *Revista chilena de ingeniería* 22.3, pp. 363–373. DOI: 10.4067/S0718-33052014000300007. **SCOPUS/SCIELO**.
- Ramírez, Patricio, Paul Leger, and Carolina Fuentes (2014). "Los Programas de Ingeniería en Sistemas de Información y Control de Gestión en Chile: Un Análisis Cuantitativo". In: *Formación Universitaria* 7.2, pp. 21–28. DOI: 10.4067/S0718-50062014000200004. **SCOPUS/SCIELO**.
- Leger, Paul, Éric Tanter, and Rémi Douence (2013). "Modular and Flexible Causality Control on the Web". In: *Science of Computer Programming* 78.9, pp. 1538–1558. DOI: 10.1016/j.scico.2012.11.005. **JCR-ISI**.
- Gálvez, Grecia, Diego Cosmelli, Lino Cubillos, Paul Leger, Arturo Mena, Éric Tanter, Ximena Flores, Gina Luci, Soledad Montoya, and Jorge Soto Andrade (2011). "Estrategias Cognitivas para el Cálculo Mental". In: *Revista Latinoamericana de Investigación en Matemática Educativa* 14.1, pp. 9–40. **JCR-ISI**.

Conferences (SCOPUS)

- Fukuda, Hiroaki, Ryota Gunji, Tadahiro Hasegawa, Paul Leger, and Ismael Figuerola (2020). "Toward distributed Streaming data Sharing Manager for Autonomous Robot Control". In: *IEEE/SICE International*

- Symposium on System Integration (SII)*. Honolulu, USA: ACM Press, pp. 862–866. DOI: 10.1109/SII46433.2020.9025920. **SCOPUS**.
- Fukuda, Hiroaki, Paul Leger, and Ismael Figueroa (2020). “A Practical Methodology to Learn Computer Architecture, Assembly Language, and Operating System”. In: *the International Conference on Computer Supported Education (CSEDU)*. Prague, Czech Republic: ACM Press. **To appear**.
- Figueroa, Ismael, Bruno García, and Paul Leger (2018). “Towards Progressive Verification in Dafny”. In: *Proceedings of the XXII Brazilian Symposium on Programming Languages (SBLP 2018)*. São Carlos, Brazil, pp. 90–97. DOI: 10.1145/3264637.3264649.
- Leger, Paul and Hiroaki Fukuda (2017). “Sync/CC: Continuations and Aspects to Tame Callback Dependencies on JavaScript Handlers”. In: *Proceedings of the 32nd Annual ACM Symposium on Applied Computing (SAC 2017)*. Marrakech, Morocco: ACM Press, pp. 1245–1250. DOI: 10.1145/3019612.3019783. **Rank B (CORE ranking)**.
- Sabin, Mihaela, Barbara Viola, John Impagliazzo, Renzo Angles, Mariela Curiel, Paul Leger, Jorge Murillo, Hernán Nina, José Antonio Pow-Sang, and Ignacio Trejos (2016). “Latin American Perspectives to Internationalize Undergraduate Information Technology Education”. In: *Proceedings of the 2016 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016)*. Arequipa, Peru, pp. 1–22. DOI: 10.1145/3024906.3029847. **Rank A (CORE ranking)**. **NOTE: Selected in "the best of ourselves" Chilean JCC-2019**.
- Rocha, Wiliam, Hiroaki Fukuda, and Paul Leger (2015). “Modular Asynchronous Web Programming: Advantages and Challenges”. In: *Proceedings Proceedings of 9th International Conference on Bio-inspired Information and Communications Technologies (BICT 2015)*. DOI: 10.4108/eai.3-12-2015.2262472. **A mirror version (with the same DOI) was published in the journal EAI Endorsed Transactions on Collaborative Computing**.
- Vidal, Cristian, David Benavides, Paul Leger, José Galindo, and Hiroki Fukuda (2015). “Mixing of Join Point Interfaces and Feature-Oriented Programming for Modular Software Product Line”. In: *Proceedings Proceedings of 9th International Conference on Bio-inspired Information and Communications Technologies (BICT 2015)*. New York, USA. DOI: 10.4108/eai.3-12-2015.2262534. **A mirror version (with the same DOI) was published in the journal EAI Endorsed Transactions on Scalable Information Systems**.
- Toledo, Rodolfo, Paul Leger, and Éric Tanter (2010). “AspectScript: Expressive Aspects for the Web”. In: *Proceedings of the 9th ACM International Conference on Aspect-Oriented Software Development (AOSD 2010)*. Rennes and Saint Malo, France: ACM Press, pp. 13–24. DOI: 10.1145/1739230.1739233. **Rank A (CORE ranking)**.

Workshops (SCOPUS)

- Leger, Paul and Hiroaki Fukuda (2016). “Using Continuations and Aspects to Tame Asynchronous Programming on the Web”. In: *Proceedings of the Workshop on Foundations of Aspect-Oriented Languages (FOAL 2016)*. Malaga, Spain: ACM Press, pp. 79–82. DOI: 10.1145/2892664.2892675. **Rank C (CORE ranking)**.
- Fukuda, Hiroaki and Paul Leger (2015b). “Proposals for Modular Asynchronous Web Programming: Issues and Challenges”. In: *Proceedings on Pervasive Web Technologies, Trends and Challenges (PEWET 2015)*. Vol. 9396. Lecture Notes in Computer Science. Rotterdam, the Netherlands: Springer International Publishing, pp. 91–102. DOI: 10.1007/978-3-319-24800-4_8. **Published on Lectures Notes in Computer Science**.
- Silva, Cristian Vidal, David Benavides, José Ángel Galindo, Paul Leger, Rodolfo Villarroel, and Sebastián Valenzuela (2015). “JPI Feature Models: Exploring a JPI and FOP Symbiosis”. In: *WASE 2015 Workshop on Advanced Software Engineering*. Santiago, Chile, pp. 1–6. DOI: 10.1109/SCCC.2015.7416583.
- Leger, Paul and Éric Tanter (2012). “A Self-Replication Algorithm to Flexibly Match Execution Traces”. In: *Proceedings of the 11th Workshop on Foundations of Aspect-Oriented Languages (FOAL 2012)*. Potsdam, Germany: ACM Press, pp. 27–32. DOI: 10.1145/2162010.2162019. **Rank C (CORE ranking)**.

Congresses (*Conferences/Workshops not indexed by JCR-ISI/SCOPUS/SCIELO/ESCI*)

Note: These papers are just presentations of technical reports or working papers.

- Leger, Paul, Felipe Ruiz, and Guillermo Victorero (2019). "DeloreanJs: Un Debugger en el Tiempo para JavaScript". In: *X Congreso Internacional de Computación e Informática del Norte de Chile (Infonor 2019)*. Antofagasta, Chile.
- López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (2019). "Don't Wear me Out! The Effect of Tweet Repetition". In: *XXXI Congreso de Marketing (AEMARK 2019)*. Cáceres, Spain.
- Pizarro, Vicky, Paul Leger, Carmen Hidalgo-Alcázar, and Ismael Figueroa (2018). "Simulación de un Modelo Basado en Agentes para la Elección de Destinos Turísticos". In: *IX Congreso Internacional de Computación e Informática del Norte de Chile (Infonor 2018)*. Iquique, Chile.
- Araya, Natalia, Paul Leger, and Manuela López (2017). "A Quién Selecciono? Análisis De Hubs y Líderes de Opinión en la Difusión de Información en Twitter. Una Simulación Basada en Agentes". In: *XXIX Congreso Internacional de Marketing (AEMARK 2017)*. Sevilla, Spain. **Superseded by IEEE Latin America Transactions.**
- López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (2017). "How many times should a company repeat a tweet to reach the highest diffusion? An agent-based simulation approach". In: *V Workshop De Jóvenes Investigadores En Economía Y Empresa*. Jaca, Spain.
- López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (2017). "The Effect of Message Repetition on Information Diffusion on Twitter Using an Agent-Based Simulation". In: *The 2017 International Conference on Research in Advertising (ICORIA 2017)*. Ghent, Belgium.
- Pizarro, Vicky, Paul Leger, and Carmen Hidalgo-Alcázar (2017). "Elección de los Destinos Turísticos de España: Una Simulación Basada en Agentes". In: *XXIX Congreso Internacional de Marketing (AEMARK 2017)*. Sevilla, Spain.
- López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (2016). "Tell Me Again! The Effect of Message Repetition on Information Diffusion on Twitter: An Agent-Based Approach". In: *XXVIII Congreso de Marketing (AEMARK 2016)*. Leon, Spain.
- López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (2015). "An Agent-based Information Diffusion Study on Social Network Sites". In: *III Workshop Jóvenes Investigadores en Economía y Empresa*. Teruel, España.
- López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (2015). "Don't Bother Me with Many Messages: An Information Diffusion Study on Social Network Sites with An Agent-Based Approach". In: *XXVII Congreso de Marketing (AEMARK 2015)*. Pamplona, Spain. **Best Working Paper Award!**
- Vidal, Cristian, David Benavides, José Galindo, and Paul Leger (2015). "Exploring the Synergies between Join Point Interfaces and Feature-Oriented Programming". In: *XX Jornadas de Ingeniería del Software y Bases de Datos (JISBD 2015)*. Santander, España.
- Azegami, Takeshi, Hiroaki Fukuda, and Paul Leger (2014). "Towards a Virtual Block Approach to Tame Asynchronous Programming". In: *Proceedings of 8th International Conference on Bio-inspired Information and Communications Technologies (BICT 2014)*. Boston, USA: ACM Press, pp. 239–242. doi: 10.4108/icst.bict.2014.257939. **Superseded by IJSEKE (International Journal of Software Engineering and Knowledge Engineering).**
- Vidal, Elizabeth, Edwin Morales, and Paul Leger (2014). "Usando BPMN para Modelar Procesos en el Área de Ingeniería y Proyectos de una Empresa Minera del Perú". In: *VI Congreso Internacional de Computación y Telecomunicaciones (COMTEL 2014)*. Lima, Peru.
- Ramírez, Pablo, Paul Leger, and Andres Vallone (2013). "Un Modelo Flexible para la Simulación de Distribución de Ciudades". In: *IV Congreso Internacional de Computación e Informática del Norte de Chile (Infonor 2013)*. Coquimbo, Chile. **Superseded by INGENIARE.**
- Ramírez, Patricio, Paul Leger, and Carolina Fuentes (2013). "Explorando los Programas de Ingeniería en Sistemas de Información y Control de Gestión en Chile". In: *XV Congreso Chileno de Educación Superior en Computación (CCESC 2013)*. Temuco, Chile. **Superseded by Formación Universitaria.**
- Leger, Paul (2010). "Developing Context-Aware Systems Using Expressive Trace-based Mechanisms". In: *Encuentro Tesistas de Doctorados en Jornada Chilena de Computación (JCC)*. Antofagasta, Chile.
- Leger, Paul and Éric Tanter (2010). "An Open Trace-Based Mechanism". In: *Proceedings of the 14th Brazilian Symposium on Programming Languages (SBLP 2010)*. Ed. by Jonathan Aldrich and Ricardo Massa. Salvador - Bahia, Brazil, pp. 123–138.

- Leger, Paul and Éric Tanter (2010). "Towards an Open Trace-Based Mechanism". In: *Proceedings of the Ninth Workshop on Foundations of Aspect-Oriented Languages (FOAL 2010)*. Ed. by Gary T. Leavens, Shmuel Katz, and Mira Mezini. Rennes and Saint-Malo, France, pp. 25–30.
- Leger, Paul (2008). "Context-Dependent Adaptations Using Tracematch Extensions". In: *Encuentro Tesistas de Doctorados en Jornada Chilena de Computación (JCC)*. Punta Arenas, Chile.

Posters

- Leger, Paul, Carmen Hidalgo-Alcázar, and Manuela López (2018). "Using an agent-based model to measure the message repetition effect on Twitter". In: *Proceedings of the 33rd Annual ACM Symposium on Applied Computing (SAC 2018)*. Pau, France: ACM Press, pp. 1828–1830. DOI: 10.1145/3167132.3167429.
- Fukuda, Hiroaki and Paul Leger (2015a). "A Library to Modularly Control Asynchronous Executions". In: *Proceedings of the 30th Annual ACM Symposium on Applied Computing (SAC 2015)*. Salamanca, Spain: ACM Press, pp. 1648–1650. DOI: 10.1145/2695664.2696034.
- Fukuda, Hiroaki and Paul Leger (2015). "An Efficient Agent Location Management for Wireless Sensor Networks". In: *Proceedings of International Conference on Distributed Computing in Sensor Systems (DCOSS 2015)*. Fortaleza, Brazil: ACM Press, pp. 10–12. DOI: 10.1109/DCOSS.2015.19. **Superseded by JUCS (Journal of Universal Computer Science)**.
- Leger, Paul, Manuela López, Carmen Hidalgo-Alcázar, and Hiroaki Fukuda (2015). "An Open Agent-Based Model to Simulate the Effect of WOM Marketing Campaigns". In: *Proceedings Proceedings of 9th International Conference on Bio-inspired Information and Communications Technologies (BICT 2015)*. New York, USA. DOI: 10.4108/eai.3-12-2015.2262533. **A mirror version (with the same DOI) was published in the journal EAI Endorsed Transactions on Smart Cities.**
- Leger, Paul and Hiroaki Fukuda (2014). "Why do Developers not Take Advantage of the Progress in Modularity?" In: *Proceedings Proceedings of 8th International Conference on Bio-inspired Information and Communications Technologies (BICT 2014)*. Boston, USA: ACM Press, pp. 388–389. DOI: 10.4108/icst.bict.2014.257938.

Professional

Autopista Central. Consulting engineer, 2017.

Regional Observatory (working market). Software project manager, implementation of an information system that allows users to analyze working market in a region of Chile, 2016 - 2017.

Autopista Central. Consulting engineer, 2011.

Center for Advanced Research in Arid Zones (CEAZA). Research assistant, two tasks: a) using MM5 (mesoscale model) to simulate or predict mesoscale atmospheric circulation and b) applying artificial neural networks to group/classify rainfall scenarios (both tasks applied to a limited-area in Chile), 2002 - 2004.

Viña Ocho Tierras. Project Manager of Web Site, 2002.

Software

RAI-JS: Context-Oriented Programming, which supports reactive activation interfaces.

DeloreanJs: A back-in-time debugger for JavaScript. This software is strongly developed with Felipe Ruiz (felipe.ruiz@alumnos.ucn.cl) and Guillermo Victorero (guillermo.victorero@alumnos.ucn.cl).

SyncCC: A library to address callback issues on JavaScript.

AspectScript: An aspect language for JavaScript.

ESA-JS: An Expressive Stateful Aspect Language (ESA) for JavaScript.

WeCa: A practical library to address causality issues on the Web.

Awards & Distinctions

The best of ourselves, JCC, article for “the best of ourselves” on Chilean Computer Science Society, Chile, 2019.

Funding for Visiting Researcher, Alliance of Pacific (AGCI 2018) for a research stay (<https://alianzapacifico.net/becas-2/>), Colombia, 2018.

Best working paper award, AEMARK (<http://www.aemarkcongresos.com/congreso2015/es/premios>), Spain, 2015.

Selected as the best professor for undergrad teaching, Business School, Catholic University of the North, Chile, 2014 and 2017.

In the press,

El Observatorio, a Japanese-Chilean collaboration:

<http://www.elobservatodo.cl/noticia/tecnologia/expertos-de-japon-y-ucn-colaboran-en-proyectos-dedicados-computacion>

Viva Chile Elqui, only Chilean researcher who worked on the update of IT curricula:

<http://vivechileelqui.cl/2016/09/05/academico-ucn-es-unico-chileno-colaborando-en-actualizacion-mundial-en-computacion>

Ph.D funding, Conicyt, Chile, 2007.

Ph.D funding, Nic, Chile, 2006.

References

Éric Tanter. PhD in Computer Science. Full Professor. Computer Science Department (DCC), University of Chile, Chile (etanter@dcc.uchile.cl).

Jorge Soto-Andrade. PhD in Mathematics Science. Full Professor. Mathematics Department. University of Chile, Chile (sotoandr@uchile.cl).

Melitta Fiebig. PhD in Mathematics Science. Retired Full Professor. Mathematics Department. University of La Serena, Chile (mefiebig@userena.cl).