Curriculum Vitae

Charles Consel
Professor of Computer Science
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Born : August 22, 1960 Married, 2 children French citizen



Education

1991 Habilitation à Diriger des Recherches, University of Rennes I. 1989 Ph.D. in Computer Science, University of Paris VI.

Professional Employment

2000 – Professor of Computer Science, *Bordeaux INP*.

1993 – 2000 Professor of Computer Science, University of Rennes I.

1992 – 1993 Assistant Professor, Oregon Graduate Institute, Portland, OR, USA.

1989 – 1993 Associate Research Scientist, Yale University, New Haven, CT, USA.

1985 – 1987 Assistant Research Scientist, Centre Mondial de l'Informatique, Paris.

Collective Duties

2010 – Director of program – Software Engineering in Networking and Telecommunications.

2007 – Member of the scientific council of the CNRS in the working group on Software Engineering.

2000 – 2005 Founder and Head of the department of Telecommunications and Networking of ENSEIRB.

2000 - 2007 Member of the recruiting committee in Computer Science at the university of Bordeaux I.

1994 – 2000 Member of the recruiting committee in Computer Science at the university of Rennes I.

1996 – 2000 Founder and Head of a one-year Computer Science program at the university of Rennes I.

1995 – 2000 Council member of the research laboratory of IRISA (CNRS/Inria).

Research Duties

2005 – Founder and head of the Phoenix research group at Inria (Bordeaux).

1997 – 2005 Founder and head of the Compose research group at Inria (Rennes).

These two research groups are internationally known in the domain of programming languages, operating systems, telephony, ubiquitous computing and more recently in assistive computing.

Publications and invited talks

H-Index = 43 (source: scholar.google.com)

- 2 book chapters.
- 30+ publications in international journals: TCS, TOPLAS, TOCS, TSE, TACCESS...
- 70+ publications in international conferences: POPL, PLDI, OOSPLA, ECOOP, OSDI, SOSP, ICSE, ASE...

I am invited to give talks on a regular basis to the research labs and universities worldwide, including Princeton University, Carnegie Mellon University, Georgia Institute of Technology, Yale University, Columbia University, Microsoft Research, McGill University, Macquarie University, and Tsinghua University.

Awards

- 2016 Best paper award IEEE UIC.
- 2014 Best paper award ACM ASSETS.
- 2008 Best innovative technology awarded to Siderion Technologies, the spin-off of my research group Phoenix that I cofounded.
- 2008 Best student paper Conference on Principles, Systems and Applications on IP Telecommunications.
- 2004 Best paper award IEEE Conference on Local Computer Network.
- 1997 Best paper award IEEE Conference on Automated Software Engineering.
- 2000 Best doctoral thesis awarded to my student Laurent Réveillère by French Chapter of ACM SIGOPS.

Scientific Popularization

My work is covered by the news media, specialized and general purpose.

- 2 radio reports on BFM, 2008.
- 1 article in economic newspaper Les Echos, 2008.
- 1 article in Le Journal des Telecoms, 2008.
- 1 article in 01 Net, 2008.
- 1 article in *Usine Nouvelle*, 2008.
- 6 articles in a regional newspaper, *Sud-Ouest*, 2005, 2007, 2012, 2014, 2015.
- 1 article in le Monde Informatique, 2005.
- 2 TV report on FR3 Aquitaine, 2005, 2014.

Teaching and PhD supervision

Courses (last 10 years): Introduction to Operating System, Compiler, Software Architectures, Domain-Specific Languages, Telephony Over IP, Ubiquitous Computing, Software Engineering for Smart Spaces.

I develop new courses on a regular basis, to address a teaching need (e.g., Telephony Over IP), or as a byproduct of a research project (e.g., Software Engineering for Smart Spaces).

PhD students: 28 graduated and 3 ongoing. A detailed list is included.

Among my Ph.D. students, 2 graduated from Yale University, 9 from the University of Rennes I, and 17 from the University of Bordeaux I. I supervised 23 PhD students alone and co-supervised 5 of them. Among my former PhD students, there are

- 1 research faculty: S. Bhatia, Princeton university (US),
- 1 post-doctoral fellow: M. Kabac, Imperial College (GB),
- 6 faculty members: D. Cassou, university of Lille I (FR), Z. Drey, ENSTA-Bretagne (FR), J. Mercadal, EISTI Cergy (FR), U. Schultz, university of Syddansk (DK), L. Réveillère, ENSEIRB-MATMECA (FR), S. C. Khoo, university of Singapore (SG).
- 2 CEOs of companies: A. Kishon (US) and S. Thibault (US).

Technology Transfer

- 2 patents (1998, 2006)
- 4 software licenses at Agence de Protection des Programmes (APP)
- Cofounder of Siderion Technologies (2007)

Grants and Contracts

- 20+ industrial contracts: Alcatel, France Telecom, IBM, Thomson, Thales, Microsoft (USA, GB, France), ...
- 3 grants from the European Union: ITEA and IP6
- 6 grants from national funding agencies: RNRT, ACI and ANR
- 20+ grants from regional funding agencies: Bretagne and Aquitaine regions
- 6 grants from US funding agencies: NSF and DARPA

Professional Activities

- Program committee member of international conferences: 50+
- Organization of scientific events: 10+
- Member, reviewer and chair of committees for both theses and habilitation à diriger des recherches: 40+
- Reviewers for funding agencies in France, US, Europe and Asia.

I am invited to participate to program committees of the best conferences worldwide in my research field. *E.g.*, POPL, PLDI, OOSPLA and ECOOP. I am also often invited to participate to thesis committee in France and abroad.

Grants and Contracts (key projects since 2000)

Note that funding sources listed below have limited overhead (ranging from 0% to 25%). Also, 6 fellowships (109 K€ each) from Inria and the Minister of Higher Education and Research are not listed.

Industrial contracts (PI)

- Development of a prototype of DiaSuiteBox on the Bouygues set-top box *Dates*: 2011 *Source*: Bouygues Telecom *Amount*: 15K€
- An Integrated Approach to Developing Software with QoS

 Dates: 2010-2013 Source: Thales/CIFRE Amount: 50K€ + a PhD fellowship (109 K€)
- A Design-Driven Approach to Developing Safe Applications

 Dates: 2010-2013 Source: Thales/CIFRE Amount: 50K€ + a PhD fellowship (109 K€)
- Developing and Testing Pervasive Computing Applications: A Tool-Based Methodology Dates: 2009-2011 – Source: Thales/CIFRE – Amount: 50K€ + a PhD fellowship (109 K€)
- Towards a Methodology Dedicated to Orchestrate Networked Entities Dates: 2006-2009 – Source: Thales/CIFRE – Amount: 50K€ + a PhD fellowship (109 K€)
- Service-Oriented Infrastructure for the Development of Ubiquitous Computing Applications Dates: 2005-2008 – Source: Thales/CIFRE – Amount: 50K€ + a PhD fellowship (109 K€)

European grants

- Large-scale deployment and experiment of an assisted living platform Dates: 2015-2017 – Source: FEDER – Amount: 412K€ (PI)
- Mechanisms for sustainability and enhancement of solid biomass market *Dates*: 2011-2013 – *Source*: SUDOE (Interreg IV B) – *Amount*: 24K€ (Co-PI)
- Ambient Intelligence for the Networked Home Environment (AMIGO)

 Dates: 2004-2008 Source: IST Integrated Project (FP 6) Amount: 247K€ (Co-PI)

National grants (PI)

- Large scale orchestration of networked objects (Object's world)
 - *Dates*: 2011-2013 *Source*: OSEO *Amount*: 180K€
- Towards intelligent and environmentally-friendly buildings (SmartImmo)

 Dates: 2009-2010 Source: SCS (Secured Communicating Solutions) Amount: 161K€
- Language Families for Systems Families

 Dates: 2006-2009 Source: ANR Blanc Amount: 68K€

Aquitaine Province grants (PI)

- Assisted living support for adults with intellectual deficiency Dates: 2014-2017 – Source: Aquitaine-Inria – Amount: 218K€
- A cognitive approach to assisted living support Dates: 2013-2016 – Source: Aquitaine-Inria – Amount: 109K€
- A language-independent methodology for compiling declarations into open platform frameworks Dates: 2012-2015 – Source: Aquitaine-Inria – Amount: 109K€

Assisted living project – HomeAssist (PI) 2015-2017

- Source: National retirement organization (CARSAT) Amount: 300K€
- Source: District of Gironde Amount: 50K€
- Source: District of Landes Amount: 30K€
- Source: District of Pyrénées Atlantique Amount: 31K€
- Source: Retirement Mutual Company (Reunica) Amount: 60K€
- Source: Aquitaine Province Amount: 40K€

Inria funded positions – active (PI)

- Business development of HomeAssist
 - Dates: 2015-2016 Title: Business developer (49K€)
- Software development of HomeAssist
 - Dates: 2015-2016 Title: Software engineer (49K€)

Graduated PhD Students

Yale University

- 1. Siau Cheng Khoo. Parameterized Partial Evaluation Principle and Practice. 1993.
- 2. Amir Kishon. Theory and Art of Semantics-Directed Program Execution Monitoring. 1992.

University of Rennes

- 3. Anne-Françoise Le Meur (deceased). A Declarative Approach to Specializing C Programs. 2002.
- 4. Laurent Réveillère. A Language Approach to the Development of Device Drivers. 2001.
- 5. Ulrik P. Schultz. Object-Oriented Software Engineering Using Partial Evaluation. 2000.
- 6. Sandrine Chirokoff. A Uniform Approach to Program and Data Specialization. 2000.
- 7. Nic Volanski. An Automatic Approach to Specializing Systems Components. 1998.
- 8. Scott Thibault. Domain-Specific Languages: Design, Implementation and Applications. 1998.
- 9. Barbara Moura. Bridging the Gap between Functional and Imperative Languages. 1997.
- 10. Luke Hornof. Static Analyses for the Effective Specialization of Realistic Programs. 1997.
- 11. François Noël. Run-Time Specialization of Imperative Programs. 1996.

University of Bordeaux

- 12. Milan Kabac. A Design-Driven Methodology for the Development of Large-Scale Orchestrating Applications. 2016.
- 13. Paul van der Walt. A Language-Independent Methodology for Compiling Declarations into Open Platform Frameworks. 2015.
- 14. Stéphanie Gatti. An Integrated Approach to Developing Software with QoS. 2014.
- 15. Peng Fei Liu. Integrating Security Policies in Ubiquitous Computing Systems. 2013.
- 16. Quentin Enard. A Design-Driven Approach to Developing Safe Applications. 2013.
- 17. Hongyu Guan. A Programming Framework for Managing Heterogeneity and Energy Consumption for Mobile Phone in a Ubiquitous Computing Environment. 2012.
- 18. Julien Bruneau. Developing and Testing Pervasive Computing Applications: A Tool-Based Methodology. 2012.
- 19. Damien Cassou. Design-Oriented Software Development: Specification-Driven Programming. 2011.
- 20. Julien Mercadal. A Language Approach to Software Development: Application to the Ubiquitous Computing Domain. 2011.
- 21. Henner Jakob. Towards Securing Pervasive Computing Systems. 2011.
- 22. Zoé Drey. Towards a Methodology Dedicated to Orchestrate Networked Entities. 2010.
- 23. Wilfried Jouve. A Declarative Approach to Generating Programming Frameworks Dedicated to Ubiquitous Computing. 2009.
- 24. Julien Lancia. Service-Oriented Infrastructure for the Development of Ubiquitous Computing Applications. 2008.
- 25. Laurent Burgy. A Language Approach to Developing Protocol Support for Network Applications. 2008.
- 26. Nicolas Palix. A Language Approach for the Development of Robust Telephony Services. 2008.
- 27. Fabien Latry. A Language Approach to Software Engineering: Application to Telephony over IP Services. 2007.
- 28. Sapan Bhatia. Optimistic Compiler Optimizations for Network Systems. 2006.

Main Publications

Book chapters

- C. Consel. Domain-Specific Program Generation. International Seminar, Dagstuhl Castle, chapter From A Program Family To A Domain-Specific Language, pages 19–29. Number 3016 in Lecture Notes in Computer Science, State-of-the-Art Survey. Springer-Verlag, 2004.
- 2. C. Consel and L. Réveillère. *Domain-Specific Program Generation*. International Seminar, Dagstuhl Castle, chapter **A DSL Paradigm for Domains of Services**: **A Study of Communication Services**, pages 165 179. Number 3016 in Lecture Notes in Computer Science, State-of-the-Art Survey. Springer Verlag, 2004.

Journals

- 1. L. Dupuy, C. Consel, H. Sauzéon. **Self Determination-Based Design To Achieve Acceptance of Assisted Living Technologies For Older Adults**. *Computers in Human Behavior*, 2016, 65.
- 2. P. Van Der Walt, C. Consel, E. Balland. **Frameworks Compiled from Declarations: A Language-Independent Approach**. *Software: Practice and Experience*, John Wiley & Sons Ltd, 2016.
- 3. D. Lussier-Desrochers, H. Sauzéon, C. Consel, J. Roux, E. Balland, V. Godin-Tremblay, B. N'Kaoua, Y. Lachapelle. **Analysis of How People with Intellectual Disabilities Organize Information Using Computerized Guidance**. *Disability and Rehabilitation: Assistive Technology*, Taylor & Francis, 2016.
- 4. C. Fage, L. Pommereau, C. Consel, E. Balland and H. Sauzéon. **Tablet-based Activity Schedule in Mainstream Environment for Children with Autism and Children with ID**. *ACM Transactions on Accessible Computing* (under revision). 2015.
- 5. B. Bertran, J. Bruneau, D. Cassou, N. Loriant, E. Balland and C. Consel. **DiaSuite: a Tool Suite To Develop Sense/Compute/Control Applications**. *Science of Computer Programming*, pages 39-51, Volume 79 Issue 1, 2014. Elsevier.
- 6. J. Mercadal, Z. Drey and C. Consel. **Denotational Semantics of a User-Oriented, Domain-Specific Language**. *Electronic Proceedings in Theoretical Computer Science (TCS)*, pages 229-2249, 2013.
- 7. J. Bruneau and C. Consel. **DiaSim: a Simulator for Pervasive Computing Applications**. *Software, Practice and Experience*, pages 885-909, Volume 43 Issue 8, 2013. Wiley.
- 8. Z. Drey and C. Consel. **Taxonomy-Driven Prototyping of Home Automation Applications: a Novice-Programmer Visual Language and its Evaluation**. *Journal of Visual Languages and Computing*, pages 311-326, Volume 3 Issue 6, 2012. Elsevier.
- 9. D. Cassou, J. Bruneau, C. Consel, and E. Balland. **Towards a Tool-based Development Methodology for Pervasive Computing Applications**. *IEEE Transactions on Software Engineering*, pages 1445-1463, Nov-Dec. 2012.
- 10. S. Bhatia, C. Pu, and C. Consel. **Remote specialization for efficient embedded operating systems**. *ACM Transactions on Programming Languages and Systems*, 30(4). 2008.
- 11. A.-F. Le Meur, J.L. Lawall, and C. Consel. **Specialization scenarios : A pragmatic approach to declaring program specialization**. *Higher-Order and Symbolic Computation*, 17(1):47–92, 2004.
- 12. C. Consel, J.L. Lawall, and A.-F. Le Meur. A tour of Tempo: A program specializer for the C language. *Science of Computer Programming*, 2004. Elsevier.
- 13. U.P. Schultz, J.L. Lawall, and C. Consel. **Automatic program specialization for Java**. *ACM Transactions on Programming Languages and Systems*, 25(4): 452–499, 2003.
- 14. S. Gulwani, A. Tarachandani, D. Gupta, D. Sanghi, L.P. Barreto, G. Muller, and C. Consel. **Webcal: A Domain-Specific Language for Web Caching**. *Computer Communications*, (17):191–201, 2001.
- 15. D. McNamee, J. Walpole, C. Pu, C. Cowan, C. Krasic, A. Goel, P Wagle, C. Consel, G. Muller, and R. Marlet. **Specialization Tools and Techniques for Systematic Optimization of System Software**. *ACM Transactions on Computer Systems*, 19(2):217–251, 2001.
- 16. C. Consel. Foreword to the special issue on partial evaluation and semantics-based program manipulation. *Theoretical Computer Science*, 248(1-2), 2000.
- 17. S. Thibault, C. Consel, J. Lawall, R. Marlet, and G. Muller. **Static and dynamic program compilation by interpreter specialization**. *Higher-Order and Symbolic Computation*, 13(3):161–178, 2000.
- 18. R. Marlet, S. Thibault, and C. Consel. **Efficient implementations of software architectures via partial evaluation**. *Journal of Automated Software Engineering*, 6(4):411-440, 1999.
- 19. S. Chirokoff, C. Consel, and R. Marlet. **Combining program and data specialization**. *Higher-Order and Symbolic Computation*, 12(4):309-335, 1999. Kluwer Academic Publisher.

- 20. S. Thibault, R. Marlet, and C. Consel. **Domain-specific languages: from design to implementation application to video device drivers generation**. *IEEE Transactions on Software Engineering*, 25(3):363-377, 1999.
- 21. C. Consel, L. Hornof, J. Lawall, R. Marlet, G. Muller, F. Noël, J. Noyé, S. Thibault, E. Volanschi. **Tempo: Specializing Systems Applications and Beyond**. *ACM Computing Surveys*, 30(3), 1998.
- 22. C. Consel, L. Hornof, J. Lawall, R. Marlet, G. Muller, J. Noyé, S. Thibault, E. Volanschi. **Partial Evaluation for Software Engineering**. *ACM Computing Surveys*, 30(3), 1998.
- 23. C. Consel. **Program Adaptation based on Program Transformation**. *ACM Computing Surveys*, 28A(4), 1996.
- 24. C. Consel and S.C. Khoo. **On-line & Off-line Partial Evaluation: Semantic Specifications and Correctness Proofs**. *Journal of Functional Programming*, 5(4):461-500, 1995.
- 25. J.M. Ashley and C. Consel. **Fixpoint Computation for Polyvariant Static Analyses of Higher- Order Applicative Programs**. *ACM Transactions on Programming Languages and Systems*, 16(5):1431-1448, 1994.
- 26. C. Consel and O. Danvy. **Partial evaluation in parallel**. *Lisp and Symbolic Computation*, 5(4):315-330, 1993.
- 27. C. Consel and S. C. Khoo. **Semantics-Directed Generation of a Prolog Compiler**. *Science of Computer programming*, 21:263-291, 1993. Elsevier.
- 28. C. Consel and S. C. Khoo. **Parameterized partial evaluation**. *ACM Transactions on Programming Languages and Systems*, 15(3):463-493, 1993.
- 29. C. Consel and O. Danvy. **Partial evaluation of pattern matching in strings**. *Information Processing Letters*, 30(2):79-86, 1989.
- 30. C. Consel, A. Deutsch, R. Dumeur, and J-D. Fekete. **Cskim: an extended dialect of Scheme**. *Bigre Journal*, 1989.

Conferences

- M. Kabáč, C. Consel. Designing Parallel Data Processing for Large-Scale Sensor Orchestration. UIC -The 13th IEEE International Conference on Ubiquitous Intelligence and Computing, Oct 2016, Toulouse, France. Best Paper Award.
- 2. A. Carteron, C. Consel, N. Volanschi. Improving the Reliability of Pervasive Computing Applications By Continuous Checking of Sensor Readings. *UIC The 13th IEEE International Conference on Ubiquitous Intelligence and Computing*, Oct 2016, Toulouse, France.
- 3. M. Kabáč, C. Consel, N. Volanschi. Leveraging Declarations over the Lifecycle of Large-Scale Sensor Applications. *UIC The 13th IEEE International Conference on Ubiquitous Intelligence and Computing*, Oct 2016, Toulouse, France.
- 4. M. Kabac, C. Consel. **Orchestrating Masses of Sensors: A Design-Driven Development Approach**. *GPCE The 14th International ACM Conference on Generative Programming*, Oct 2015, Pittsburgh, PA, United States.
- 5. C. Consel, L. Dupuy, H. Sauzéon. A Unifying Notification System To Scale Up Assistive Services.

 ASSETS The 17th International ACM SIGACCESS Conference on Computers and Accessibility, Oct 2015, Lisbon, Portugal.
- 6. L. Caroux, C. Consel, L. Dupuy, H. Sauzéon. Verification of Daily Activities of Older Adults: A Simple, Non-Intrusive, Low-Cost Approach. ASSETS The 16th International ACM SIGACCESS Conference on Computers and Accessibility, Oct 2014, Rochester, NY, United States.
- 7. C. Fage, L. Pommereau, C. Consel, E. Balland, H. Sauzéon. **Tablet-Based Activity Schedule for Children Autism in Mainstream Environment**. *ASSETS The 16th International ACM SIGACCESS Conference on Computers and Accessibility*, Oct 2014, Rochester, NY, United States. pp. 145-152. *Best Paper Award*.
- 8. Q. Enard, S. Gatti, J. Bruneau, Young-Joo Moon, E. Balland and C. Consel. **Design-Driven Development Methodology for Resilient Computing**. *CBSE'13: Proceedings of the 16th International Symposium on Component-Based Software Engineering*, June 2013, Vancouver, Canada. SIGSOFT ACM.
- 9. E. Balland, C. Consel, B. N'Kaoua and H. Sauzéon. **A Case for Human-Driven Software Development**. *ICSE'13: Proceedings of the 33rd International Conference on Software Engineering (NIER Track)*, May, 2013, San Francisco, United States. ACM/IEEE.
- 10. E. Quentin, S. Gatti, J. Bruneau, Y-J. Moon, E. Balland and C. Consel. **Design-Driven Development of Dependable Applications: A Case Study in Avionics.** *PECCS'13: Proceedings of the International Conference on Pervasive and Embedded Computing and Communication Systems.* Feb. 2013, Spain.

- 11. J. Bruneau, C. Consel, M. O'Malley, W. Taha and W. M. Hannourah. **Virtual Testing for Smart Buildings**. *IE'12: Proceeding of the 8th International Conference on Intelligent Environments*. June 2012, Mexico. IEEE.
- 12. D. Cassou, E. Balland, C. Consel, and J. Lawall. Leveraging Software Architectures to Guide and Verify the Development of Sense/Compute/Control Applications. *ICSE'11: Proceedings of the 33rd International Conference on Software Engineering*, May, 2011, Honolulu, United States. ACM/IEEE.
- 13. S. Gatti, E. Balland, and C. Consel. A Step-wise Approach for Integrating QoS throughout Software Development. FASE'11: European Conference on Fundamental Approaches to Software Engineering, volume 6603 of LNCS, Sarrbrucken Germany, 2011. Springer-Verlag.
- 14. H. Jakob, C. Consel, and N. Loriant. **Architecturing Conflict Handling of Pervasive Computing Resources**. *DAIS'11: 11th IFIP International Conference on Distributed Applications and Interoperable Systems*, Jun 2011, Reykjavik, Iceland.
- 15. J. Mercadal, Q. Enard, C. Consel, and N. Loriant. A Domain-Specific Approach to Architecturing Error Handling in Pervasive Computing. OOPSLA'10: Conference on Object Oriented Programming Systems Languages and Applications, Oct. 17, 2010, Reno, United States.
- 16. B. Bertran, C. Consel, W. Jouve, H. Guan, and P. Kadionik. SIP as a Universal Communication Bus: A Methodology and an Experimental Study. ICC'10: International Conference on Communications, May. 24, 2010, Cape Town, South Africa.
- 17. D. Cassou, B Bertran, N. Loriant, and C. Consel. A Generative Programming Approach to Developing Pervasive Computing Systems. *GPCE'09: Proceedings of the 8th international conference on Generative programming and component engineering*, Oct. 4, 2009, Denver, CO, United States, pp. 137-146.
- 18. H. Jakob, N. Loriant and C. Consel. **An Aspect-Oriented Approach to Securing Distributed Systems**. *ICPS'09: Sixth ACM International Conference on Pervasive Services*, Jul 2009, London, United Kingdom. ACM, pp. 21-30.
- 19. Z. Drey, J. Mercadal, and C. Consel. A Taxonomy-Driven Approach to Visually Prototyping Pervasive Computing Applications. *1st IFIP Working Conference on Domain-Specific Languages*, Jul. 11, 2009, Oxford, United Kingdom, vol. 5658, pp. 78-99.
- 20. J. Bruneau, W. Jouve, and C. Consel. **DiaSim: A Parameterized Simulator for Pervasive Computing Applications**. 6th International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (Mobiquitous'09), Jul. 13, 2009, Toronto, Canada.
- 21. W. Jouve, N. Palix, C. Consel, and P. Kadionik. A SIP-based Programming Framework for Advanced Telephony Applications. In *Proceedings of The 2nd LNCS Conference on Principles, Systems and Applications of IP Telecommunications*, Heidelberg, Germany, pages 1-20, 2008. <u>Best Student Paper Award</u>.
- 22. J. Mercadal, N. Palix, C. Consel, and J. Lawall. **Pantaxou: a Domain-Specific Language for Developing Safe Coordination Services**. In *Proceedings of the Seventh International Conference on Generative Programming and Component Engineering*, Nashville, Tennessee, USA, pages 149-160, 2008.
- 23. W. Jouve, J. Lancia, N. Palix, C. Consel, and J. Lawall. **High-level Programming Support for Robust Pervasive Computing Applications**. In *Proceedings of the 6th IEEE Conference on Pervasive Computing and Communications*, Hong Kong, China, pages 252-255, 2008.
- 24. N. Palix, C. Consel, L. Réveillère, and J. Lawall. A Stepwise Approach to Developing Languages for SIP Telephony Service Creation. In Proceedings of Principles, Systems and Applications of IP Telecommunications, pages 79–88, New York, NY, USA, 2007. ACM Press.
- 25. F. Latry, J. Mercadal, and C. Consel. **Staging Telephony Service Creation: A Language Approach.** In *Principles, Systems and Applications of IP Telecommunications*, New York, NY, USA, 2007. ACM Press.
- 26. W. Jouve, N. Ibrahim, L. Réveillère, F. Le Mouël, and C. Consel. Building Home Monitoring Applications: From Design to Implementation into the Amigo Middleware. In Proceedings of The Second International Conference on Pervasive Computing and Applications, Birmingham, UK, 2007.
- 27. W. Jouve, J. Lancia, C. Consel, and C. Pu. A Multimedia-Specific Approach to WS-Agreement. In *Proceedings of The 4th IEEE European Conference on Web Services*, Zurich, Switzerland, 2006. IEEE Computer Society Press.
- 28. L. Burgy, C. Consel, F. Latry, J. Lawall, N. Palix, and L. Réveillère. Language Technology for Internet-Telephony Service Creation. In *IEEE International Conference on Communications*. IEEE Computer Society Press, 2006.
- 29. L. Burgy, C. Consel, F. Latry, N. Palix, and L. Réveillère. A High-Level, Open Ended Architecture for SIP-based Services. In Proceedings of the tenth *International Conference on Intelligence in service delivery Networks*, Bordeaux, France, 2006.
- 30. S. Bhatia, C. Consel, and J. Lawall. Minimizing Cache Misses in an Event-driven Network Server: A Case Study of TUX. In *Proceedings of the 31st IEEE International Conference on Local Computer Networks*, Tampa, FL, 2006. IEEE Computer Society Press.

- 31. Y. Koh, C. Pu, S. Bhatia, and C. Consel. **Efficient Packet Processing in User-Level Operating Systems:** A **Study of UML**. In Proceedings of the *31st IEEE Conference on Local Computer Networks*, Tampa, FL, 2006. IEEE Computer Society Press.
- 32. G. Swint, C. Pu, G. Jung, W. Yan, Y. Koh, Q. Wu, C. Consel, A. Sahai, and K. Moriyama. Clearwater: Extensible, Fexible, Modular Code Generation. In Proceedings of the 20th IEEE International Conference on Automated Software Engineering, Long Beach, CA, 2005. IEEE Computer Society Press.
- 33. C. Consel, F. Latry, L. Réveillère, and P. Cointe. A Generative Programming Approach to Developing DSL Compilers. In R. Gluck and M. Lowry, editors, Fourth *International Conference on Generative Programming and Component Engineering*, volume 3676 of Lecture Notes in Computer Science, pages 29–46, Tallinn, Estonia, 2005. Springer-Verlag.
- 34. S. Bhatia, C. Consel, A.-F. Le Meur, and C. Pu. **Automatic Specialization of Protocol Stacks in OS Kernels**. In Proceedings of the *29th Annual IEEE Conference on Local Computer Networks*, Tampa, Florida, 2004. *Best Paper Award*.
- 35. S. Bhatia, C. Consel, and C. Pu. **Remote Customization of Systems Code for Embedded Devices**. In Proceedings of the *4th ACM International Conference on Embedded Software*, Pisa, Italy, 2004.
- 36. L. Burgy, L. Caillot, C. Consel, F. Latry, and L. Réveillère. A Comparative Study of SIP Programming Interfaces. In Proceedings of the *ninth International Conference on Intelligence in service delivery Networks*, Bordeaux, France, 2004.
- 37. C. Consel and L. Réveillère. A programmable Client-Server Model: Robust Extensibility via DSLs. In Proceedings of the 18th IEEE International Conference on Automated Software Engineering, pages 70–79, Montréal, Canada, 2003. IEEE Computer Society Press.
- 38. C. Consel, H. Hamdi, L. Réveillère, L. Singaravelu, H. Yu, and C. Pu. **Spidle: A DSL Approach to Specifying Streaming Application**. In Second *International Conference on Generative Programming and Component Engineering*, Erfurt, Germany, 2003.
- 39. T. Amtoft, C. Consel, O. Danvy, and C. Malmkjær. **The Abstraction and Instantiation of String-Matching Programs**. In *The Essence of Computation*, number 2566, pages 367–390. Lecture Notes in Computer Science, 2002.
- 40. A.-F. Le Meur, C. Consel, and B. Escrig. **An Environment for Building Customizable Software**Components. In *IFIP/ACM Conference on Component Deployment*, pages 1–14, Berlin, Germany, 2002.
- 41. F. Mérillon, L. Réveillère, C. Consel, R. Marlet, and G. Muller. **Devil: An IDL for Hardware Programming**. In *4th Symposium on Operating Systems Design and Implementation*, pages 17–30, San Diego, California, 2000.
- 42. P. Boinot, R. Marlet, Noyé J., G. Muller, and C. Consel. A Declarative Approach for Designing and Developing Adaptive Components. In Proceedings of the 15th IEEE International Conference on Automated Software Engineering, Grenoble, France, 2000. IEEE Computer Society Press.
- 43. L. Réveillère, F. Mérillon, C. Consel, R. Marlet, and G. Muller. A DSL Approach to Improve Productivity and Safety in Device Drivers Development. In Proceedings of the 15th IEEE International Conference on Automated Software Engineering, pages 101–109, Grenoble, France, 2000. IEEE Computer Society Press.
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