

# Full Academic Curriculum

## Prof. Dr. Johan Fabry

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<http://pleiad.cl/~jfabry>  
Belgian nationality.  
Born 5 April 1975.  
Married, no children.

## Employment History

- *October 2007 - current*: Assistant Professor  
Departamento de Ciencias de la Computación, Facultad de Ciencias Físicas y Matemáticas,  
Universidad de Chile
- *September 2006 - August 2007*: Postdoctoral researcher,  
INRIA Futurs, Laboratoire d'Informatique Fondamentale de Lille, France
- *July 2005-August 2006*: Postdoctoral researcher,  
Departement Computerwetenschappen, PROG lab, Vrije Universiteit Brussel, Belgium

## Education

### Higher Education

- *1999-2005*: Ph.D, Vrije Universiteit Brussel, Belgium
- *1998-1999*: Master of Science in Computer Science, Vrije Universiteit Brussel, Belgium. Joint program with École des Mines de Nantes, France and Universidad de Chile
- *1993-1998*: Licenciaat in de Informatica, Vrije Universiteit Brussel, Belgium

### Additional studies

- *2016, first semester*: Course “Leadership and Team Management” (evening course), Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile.

## Grants and Prizes

- *2016* Distinguished Contributions in Research of Universidad de Chile  
Yearly prize granted by U.Chile to faculty for exceptional productivity in publications.
- *2014* Distinguished Professor of the CS Department  
Yearly prize granted to the best profesor, based on evaluations by the students.
- *2013* Willow Garage Open Source Discount Award  
Prize consisting of a discount of 120,000 USD on the acquisition of a PR2 robot (list price is 400,000 USD) as recognition of significant contributions to Open Source software.
- *2011* ACM SIGSOFT Distinguished Paper Award  
Granted at the ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (Models 2011). By ACM SIGSOFT
- *1999* Ph.D. Scholarship by the Flemish government: “IWT Specialisatiebeurs”

# Main Research Areas

There are three main research areas to which I have dedicated myself during my career, and I will briefly summarise my work here. For publications I refer to the complete listing at the end of this document.

## SOFTWARE ENGINEERING FOR ROBOTICS

This is my most recent research area, which I created in the beginning of 2014. The focus of this research is to establish how software engineering can improve robotics research. Its importance is due to the fact that software is taking an ever more important role in robotics, but sadly roboticists are typically not experts at all in building and maintaining software. As a consequence, we see that tools and technologies are used that are insufficient for producing high quality software, and we also discovered multiple cases of ‘reinventing the wheel’. This all leads to a very low efficiency in the production of robotics software.

The most mature research result of this area is Live Robot Programming (LRP), a programming language that allows for the live definition of high-level robot behaviours. LRP demonstrates that it is feasible to perform robot software development in a highly dynamic way, contrary to traditional approaches. Moreover, LRP is more efficient in terms of development time needed and more programmer-friendly. The website for LRP, containing various videos and download instructions, is <http://pleiad.cl/LRP>

Relevant Publications (full references at the end of this document):

1. *2016 Testing Physics Engines with Live Robot Programming*  
Johan Fabry, Stephen Sinclair
2. *2016 Live Robot Programming: The Language, its Implementation, and Robot API Independence*  
Miguel Enrique Campusano Araya, Johan Fabry
3. *2015 Code Duplication in ROS launchfiles*  
Pablo Ignacio Estefo Carrasco, Romain Robbes, Johan Fabry
4. *2015 From Robots to Humans: Visualizations for Robot Sensor Data*  
Miguel Enrique Campusano Araya, Johan Fabry
5. *2014 Live Robot Programming*  
Johan Fabry, Miguel Enrique Campusano Araya
6. *2014 Live Programming the Lego Mindstorms*  
Johan Fabry, Miguel Enrique Campusano Araya
7. *2014 Towards Live Programming in ROS with PhaROS and LRP*  
Pablo Estefo, Miguel Enrique Campusano Araya, Luc Fabresse, Johan Fabry, Jannik Laval, Noury Bouraqadi

## SOFTWARE VISUALISATION AND ASPECTMAPS

My first publication on software visualisation was the paper on AspectMaps in 2011, where I presented the most comprehensive visualisation of aspect-oriented code to date. This work was in collaboration with various authors from different research institutes. Under my direction the resources were pooled to achieve a result that would have been impossible without this collaboration. The website of AspectMaps is <http://pleiad.cl/aspectmaps>

After AspectMaps I have continued incorporating software visualisations in my research artefacts, for example I have written the visualisations for LRP. I have also been active in the community as PC Chair of the IEEE VISSOFT conference in 2016 and as demo and NIER paper chair of VISSOFT in 2015.

Relevant Publications (full references at the end of this document):

1. *2016 Testing Physics Engines with Live Robot Programming*  
Johan Fabry, Stephen Sinclair

2. *2015 From Robots to Humans: Visualizations for Robot Sensor Data*  
Miguel Enrique Campusano Araya, Johan Fabry
3. *2014 Live Robot Programming*  
Johan Fabry, Miguel Enrique Campusano Araya
4. *2014 AspectMaps: Extending Moose to visualize AOP software*  
Authors: Johan Fabry, Kellens Andy, Denier Simon, Ducasse Stephane
5. *2013 Design decisions in AspectMaps*  
Johan Fabry, Alexandre Bergel
6. *2011 AspectMaps: A Scalable Visualization of Join Point Shadows*  
Johan Fabry, Andy Kellens, Stephane Ducasse

## DOMAIN-SPECIFIC ASPECT LANGUAGES

I created this research area in 2006 and it concluded with a survey paper in ACM computing surveys in 2015 (first submitted in 2013) of which I was the lead author. I led the organisation of seven Domain-Specific Aspect Languages (DSAL) workshops on the topic (all but one co-located with the AOSD conference) and in these workshops in total 42 papers have been presented by a wide variety of authors.

A DSAL is a DSL that features language mechanisms for expressing crosscutting concerns. Adding the crosscutting concern concept in the AOSD context means considering join points. This adds a new and distinctive element of DSALs: join points and a means of identifying them. It creates two extra dimensions in the domain specificity of the language. First, the join points emitted by the base code can reflect domain-specific abstractions instead of general-purpose ones, such as method invocations or variable accesses. Second, join points can be identified using a notation tailored to an application domain. This requires new kinds of design decisions to be made in the language creation process, which is what we studied in this research area.

The website for the workshops and for additional material for the survey is <http://dsal.dcc.uchile.cl>

Relevant Publications (full references at the end of this document):

1. *2015 A Taxonomy of Domain-Specific Aspect Languages*  
Johan Fabry, Dinkelaker Tom, Noye Jacques, Eric Pierre Tanter
2. *2014 DIE: A Domain Specific Aspect Language for IDE Events*  
Johan Fabry, Romain Robbes, Denker Marcus
3. *2012 DSAL '12: Proceedings of the seventh workshop on Domain-Specific Aspect Languages*  
Tom Dinkelaker, Johan Fabry, Jacques Noyé
4. *2009 Proceedings of the 4th workshop on Domain-Specific Aspect Languages*  
Thomas Cleenewerck, Johan Fabry, Anne-Francoise Lemeur, Jacques Noyé, Éric Tanter
5. *2008 Summary of the 3rd workshop on Domain-Specific Aspect Languages*  
Thomas Cleenewerck, Jacques Noyé, Johan Fabry, Anne-Francoise Lemeur, Éric Tanter
6. *2007 ReLax: Implementing KALA over the Reflex AOP Kernel*  
Johan Fabry, Eric Tanter, Theo D'Hondt
7. *2007 A Unified Mechanism for Improving Advanced Transaction Management in Web Services*  
Sergio Castro, Johan Fabry, Kim Mens, Theo D'Hondt
8. *2006 KALA: Kernel Aspect Language for Advanced Transactions*  
Johan Fabry, Theo D'Hondt

# Teaching

## Courses taught at Universidad de Chile

<b>Semester</b>	<b>Course Name</b>	<b>Student year</b>	<b>Num. Students</b>
S1 2008	Programación de Software de Sistemas / Systems programming	3	34
S1 2008	Taller de Proyecto / Programming Lego Mindstorms	2	29
S2 2008	Introducción al Hardware / Introduction to Computer Hardware	4	10
S1 2009	Programación de Software de Sistemas / Systems programming	3	26
S1 2009	Taller de Proyecto / Programming Lego Mindstorms	2	32
S2 2009	Introducción al Hardware / Introduction to Computer Hardware	4	11
S2 2009	Objetos y Aspectos / Objects and Aspects	4+	6
S1 2010	Arquitectura de Computadores / Introduction to Computer Hardware	4	36
S1 2010	Taller de Proyecto / Programming Lego Mindstorms	2	22
S2 2010	Arquitectura de Computadores / Introduction to Computer Hardware	4	22
S2 2010	Objetos y Aspectos / Objects and Aspects	4+	8
S1 2011	Taller de Proyecto / Programming Lego Mindstorms	2	42
S2 2011	Objetos y Aspectos / Objects and Aspects	4+	11
S1 2012	Taller de Proyecto / Programming Lego Mindstorms	2	81
S1 2013	Taller de Proyecto / Programming Lego Mindstorms	2	83
S2 2013	Objetos y Aspectos / Objects and Aspects	4+	9
S1 2014	Taller de Proyecto / Programming Lego Mindstorms	2	82
S1 2015	Taller de Proyecto / Programming Lego Mindstorms	2	83
S2 2015	Taller de Ingeniería de Software para Robots / Soft. Eng. for Robots	4+	8
S1 2016	Taller de Proyecto / Programming Lego Mindstorms	2	83
S2 2016	Taller de Ingeniería de Software para Robots / Soft. Eng. for Robots	4+	9

I have taken special efforts in that the courses I created are active learning courses, considering that research in pedagogy has shown that this course organisation obtains better learning results. My courses also have a focus on group work and communication, e.g. having various presentations and progress reports as web pages.

In 2015 I created the Software Engineering for Robots course. It marries agile software development with improving existing robotic middleware by letting the students propose and implement improvements to the de-facto standard, open source, robotic middleware ROS. Students work in groups of 2, always pair programming, and combining the Pomodoro technique with Kanban boards to manage progress.

Since 2008 I am teaching the Lego Mindstorms project-based course. Working in groups of 3, the students construct and program (in Java) a robot that performs a task of their choosing. All reports of the students are online at <https://wiki.dcc.uchile.cl/TallerMindstorms/>. In 2012 I was able to scale up the number of students from 21 to 80+ thanks to a web application that I implemented myself.

## Student supervision for Ph.D. Theses

### ADVISOR

- 2017 (*in progress, started in 2014*) *Live Robot Programming*. Miguel Campusano A.
- 2018 (*in progress, started in 2015*) *Modularity and developer roles in the Robot Operating System*. Pablo Estefó C.
- 2015 *Improving the Efficiency and Reliability of Gradual Typing*. Esteban Allende P.
- 2013 *Addressing Aspect Interactions in an Industrial Setting: Experiences, Problems and Solutions*. Arturo Zambrano (Universidad Nacional de la Plata, Argentina)

### COMMITTEE MEMBER

- 2014 *Modular and Secure Access Control With Aspects*. Rodolfo Toledo T.
- 2014 *Effective Aspects: A Typed Monadic Model to Control and Reason About Aspect Interference*. Ismael Figueroa P
- 2012 *Opening up Trace-Based Mechanisms -- Application to Context-Aware Systems*. Paul Leger M.
- 2011 *Towards Practical Omniscient Debugging*. Guillaume Pothier

## Student supervision for masters theses

### ADVISOR

- 2015 *TextRAM, un Lenguaje de Especificación de Dominio Textual, para el Desarrollo y Manejo de Modelos RAM*. Marel Josué Oliva R.

### COMMITTEE MEMBER

- 2015 *Gestión de Relaciones con los Clientes y Campañas de Marketing: Implementación de Email Marketing en una Compañía de Seguros*. Carolina Espinoza R.
- 2015 *Self-Optimizing Skeleton Execution Using Events*. Gustavo Pabon Sanchez
- 2014 *Herramienta de Gestión Cuantitativa de Proyectos de Software Orientada por un Proceso de Desarrollo*. Daniel Ramírez A.
- 2013 *Safe and Practical Decoupling of Aspects with Join Point Interfaces*. Milton Inostroza A.
- 2013 *Extensión al Modelo de Aceptación de Tecnología TAM, para ser Aplicado a Sistemas Colaborativos, en el Contexto de Pequeñas y Medianas Empresas*. Diego Leyton S.
- 2011 *Estudio para el Establecimiento de Indicadores de Calidad para el Servicio de Acceso a Internet*. Jonathan Frez Z.
- 2011 *Reduciendo el Tráfico Radial en Emergencias a Travez del Uso de Información Relevante y Tecnología Móvil*. Manuel Ibarra C.
- 2009 *Un Modelo Abierto de Proximidad para el Descubrimiento de Servicios en Computación Pervasiva" (An Open Proximity Model For Service Discovery In Pervasive Computing)*. Victor Ramiro C.

## Student supervision for engineering degrees

### ADVISOR

- 2016 *Plataforma de comunicación entre Live Robot Programming y el robot AR.Drone de Parrot*. Carolina Hernandez Phillips
- 2016 *Desarrollo de una Herramienta Gráfica de Exploración de Robots con ROS*. Demian Schkolnik M.
- 2013 *El Lenguaje de Aspectos Amistoso Casper*. Miguel Campusano A.
- 2011 *Diseño e Implementación de Phantom, un Lenguaje de Aspectos para Pharo Smalltalk*. Daniel Galdames G.

## COMMITTEE MEMBER

- 2015 *Desarrollo de una Herramienta para Apoyar la Participación Ciudadana en las Smart City*. Juan Arancibia D.
- 2015 *Sistema para Recolectar, Archivar y Visualizar la Información Contendida en Redes Sociales en Chile*. Jazmine Maldonado Flores.
- 2014 *Desde la Web a los Móviles: LLevando U-Cursos a nuestros Bolsillos*. Alfredo Cádiz
- 2014 *Mecanismo de Filtrado Criptográfico para Sistemas de Comunicación Anónima Basados en Reencriptación*. Jorge Bahamonde V.
- 2013 *Extensión al Modelo de Aceptación de Tecnología TAM, para ser Aplicado a Sistemas Colaborativos, en el Contexto de Pequeñas y Medianas Empresas*. Diego Leyton S
- 2012 *Implementación del Protocolo HLMP en Android*. Felipe Valverde C.
- 2012 *Creación de Software Educativo para Trabajo Colaborativo con Dispositivos Móviles*. Paola Veliz
- 2011 *Sistema de Apoyo a la Enseñanza de Ingles*. Gerardo Onetto S.
- 2010 *Sistema Conversor de Documentos Txt a Formato XML CONVERTTXT2XML*. Melissa Pino S.
- 2010 *Metodología para Extraer Intereses de Usuarios de Twitter para Generacion de Recomendaciones*. Mario Castro S.
- 2010 *Control de Reentrada de Aspectos en ASPECTJ*. Carlos Cabrera H.
- 2009 *Desarrollo de una Interfaz de Programación para Detección y Seguimiento de Rasgos Faciales*. Francisco Rodriguez
- 2009 *Un Modelo Abierto de Proximidad para el Descubrimiento de Servicios en Computación Pervasiva" (An Open Proximity Model For Service Discovery In Pervasive Computing)*. Victor Ramiro C.

## Research Funding, Visits

### Projects

#### MAIN AUTHOR OR LOCAL RESEARCHER IN CHARGE

- 2013 - 2016 "Extending AO Modeling with Advanced AOP and Support for Dependencies and Interactions" FONDECYT REGULAR: Chilean funding for travels, minor hardware, student grants. ±82K EUR
- 2009 - 2013 "Engineering And Composition Of Domain-Specific Aspect Languages" FONDECYT REGULAR: Chilean funding for travels, minor hardware, student grants. ±94K EUR
- 2008 - 2010 "Corea: Comprensión And Remodularization Of Applications Based on Aspects, Classboxes And Traits" TIC-AMSUD: Funding for travels and stays. ±56K EUR

#### CO-AUTHOR OR ASSOCIATED RESEARCHER

- 2014 - 2019 "Plataforma para investigación avanzada en interacción humano- robot y robótica móvil" FONDEQUIP: Financing for the purchase of a Willow Garage PR2 autonomous robot. ±365K EUR
- 2014 - 2017 "PLOMO2: A new generation of tools to navigate and profile programs" INRIA Equipe Associée: Funding for travels and stays. 30K EUR
- 2011 - 2014 "PLOMO: Customizable Tools and Infrastructure for Software Development and Maintenance" INRIA Equipe Associée: Funding for travels and stays. 45K EUR
- 2010 - 2013 "RAPIDS: Reasoning about Aspect-oriented Programs and security in Distributed Systems." INRIA Equipe Associée: Funding for travels and stays. 35K EUR
- 2008 - 2010 "Cordial: Concurrency, Distribution And Interactions In Aspect Languages" INRIA Equipe Associée: Funding for travels and stays. 35K EUR
- 2007 - 2008 "Cordial: Concurrency, Distribution And Interactions In Aspect Languages" INRIA Equipe Associée: Funding for travels and stays. 35K EUR

## Research Visits

I perform at least one research visit per year, usually a short one or two weeks stay, combined with attending a scientific conference. The limit of 2 weeks is due to constraints set by U. de Chile.

Considering the last 6 years, grouped by location:

- La Plata, Argentina (UNLP): 2013, 2012, 2011
- Brussels, Belgium (VUB): 2015, 2014, 2012, 2011
- Lille, France (INRIA): 2016, 2013, 2012, 2010.
- Montreal and Toronto, Canada: 2013 (McGill University), 2011 (Queens' University)

## Hosting visiting Researchers

I have invited and hosted the following researchers (grouped per person and ordered chronologically):

- Marcus Denker, INRIA Lille Nord-Europe, France. One month in 2016, 2015, 2014, 2012, 2011
- Arturo Zambrano, Universidad Nacional de la Plata, Argentina. 7 days each year from 2010 to 2015.
- Coen De Roover, Vrije Universiteit Brussel, Belgium. 2015: 14 days
- Luc Fabresse, Ecole Des Mines de Douai, France. 2014: 14 days.
- Benjamin Van Ryseghem, INRIA Lille Nord-Europe, France. 2014: One month. 2012: 21 days.
- Stephane Ducasse, INRIA Lille Nord-Europe, France. 2013: 10 days, 2009: 21 days.
- Andoni Lombide, Vrije Universiteit Brussel, Belgium. 2012: 14 days.
- Wolfgang De Meuter, Vrije Universiteit Brussel, Belgium, 2012: 14 days.
- Andy Kellens, Vrije Universiteit Brussel, Belgium. 2012: 14 days.
- Tom Dinkelaker, Technische Universität Darmstadt, Germany. 2010: 21 days.
- Simon Denier, INRIA Lille Nord-Europe, France. 2009: One month.
- Gabriela Arevalo, Universidad Nacional de la Plata, Argentina. 2010: 7 days, 2009: 7 days.

## Service

### Conference Organisation

- *2016* PC chair of fourth IEEE Working Conference on Software Visualisation, (VISSOFT 2016).
- *2015* PC chair of the NIER/TD track of third IEEE Working Conference on Software Visualisation, (VISSOFT 2015).
- *2011* Workshop chair of the ACM International Conference on Aspect-Oriented Software Development. (AOSD 2011)
- *2010* Publicity chair of 10th IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS 2010)
- *2009* PC chair of 8th International conference on Software Composition (SC2009)
- *2009* Workshop chair of TOOLS EUROPE 09 conference
- *2008* BOF chair of the ACM International Conference on Aspect-Oriented Software Development (AOSD 2008)
- *2007* Demonstrations chair of the ACM International Conference on Aspect-Oriented Software Development (AOSD 2007)

### University Administration

- *2014 - current* Academic in charge of the continuous education programme of the department: 4 postgraduate diplomas taught as evening courses. In charge of hiring personnel in 2015 and 2016.
- *2009 - current* Member of the academic committee of the Masters in TI program of the department.
- *2009 - 2014* Academic in charge of the creation and maintenance of the new web site of the department.

# Outreach to Society

I have performed the following acts of outreach to society (ordered by topic):

## **DCC COMPUTER MUSEUM**

- 2012 Creation and installation of the computer museum of the CS department.
- 2012 - ...: museum curator. Maintenance and addition of new artefacts and documents.

## **SOFTWARE ENGINEERING FOR ROBOTICS**

- 2016 Exhibitor “*Encuentro de Robotica Saint George’s college*”  
Organiser of the DCC booth in a 1-day event, with presentations of several robots by my students.
- 2015 Article “*Computación para Robotica*” in *Beauchef Magazine* 8  
1 page article in the magazine of the faculty, about software for robotics and our PR2 robot.
- 2015 Invited talk in the *23th International Smalltalk Conference*  
Invited to an industrial conference to show our research on live programming for robotics, which is implemented in Smalltalk.
- 2015 Exhibitor *Robotics Day 2015*  
Event organised by Startup Chile, CORFO for the general public Approximately 6000 attendants. In addition to organising a booth manned by my students, showing our robots, I presented a talk on software engineering for robotics. The room was full with +- 200 attendants.
- 2014 Article in national press, *El Mercurio newspaper 26 December*  
Half-page article about our PR2 robot purchased thanks to the Fondecup project.
- 2014 Article *Fondecup project Beauchef Magazine* 7  
1 page article in the magazine of the faculty about our PR2 robot.

## **PROGRAMMING LEGO MINDSTORMS**

- 2016, 2014, 2012 Exhibitor “*Festival de Ingeniería*”  
By explicit request of the faculty, presenting the ‘best of’ of the student projects in a bi-annual 3-day event open to the general public (typically 5000+ people attending)
- 2013 Article about the class in *Beauchef Magazine* 5  
4/5 page article about the class in the magazine of the faculty
- 2009 Article about the class in *DCC: Bits de Ciencias* 3  
4 page, cover page article in the CS department magazine

## **MISCELLANEOUS**

- 2015 Article about continuous education *PEC in DCC: Bits de Ciencias* 12  
4-page article about the continuous education programme of the department in the CS department magazine.
- 2012 Invited talk in the *Chilean Computer Science Week*  
Invited talk in the track “Lo Mejor de lo Nuestro” (The best of Our Work) of the Chilean Computer Science Week. The talk presented my article “Expressing Aspectual Interactions in Design: Experiences in the Slot Machine Domain” that got the ACM Distinguished paper award at MODELS’11



# Scientific Literature

All my papers are also available from my web page <http://pleiad.cl/~jfabry>

## Books

### CONFERENCE PC CHAIR

- *2016 Proceedings of the 4th IEEE working conference on Software Visualisation (VISSOFT 2016)*  
Editors: Christopher Parnin, Johan Fabry. IEEE Computer Society Press
- *2009 Proceedings of the 8th International Symposium on Software Composition (SC 2009)*  
Editors: Alexandre Bergel, Johan Fabry. Springer-Verlag

### TECHNICAL BOOKS

- *2016 Spec: The User interface builder for Pharo* (in progress)  
Authors: Stéphane Ducasse, Johan Fabry. Square Bracket Associates
- *2016 Enterprise Pharo: a Web perspective*  
Editors: Damien Cassou, Stéphane Ducasse, Luc Fabresse, Johan Fabry, Sven Van Caekenberghe  
Also participated as author (19 authors in total). Square Bracket Associates

## Book Chapters

- *2013 Experience Report: AORE in Slot Machines*  
Arturo Zambrano, Johan Fabry, Silvia Gordillo  
Aspect-Oriented Requirements Engineering pp 317 - 332. Springer Verlag.

## Articles in Journals

### ISI JOURNALS

1. *2017 Live Robot Programming: The Language, its Implementation, and Robot API Independence*  
Authors: Miguel Enrique Campusano Araya, Johan Fabry  
Journal: SCIENCE OF COMPUTER PROGRAMMING, Vol 133 (1), pp. 1 - 19.
2. *2016 AspectJ code analysis and verification with GASR*  
Authors: Johan Fabry, De Roover Coen, Noguera Carlos, Zschaler Steffen, Rashid Awais, Jonckers Viviane  
Journal: JOURNAL OF SYSTEMS AND SOFTWARE, Vol. 117 (), pp. 528 - 544.
3. *2016 Expressing aspectual interactions in design: evaluating three AOM approaches in the slot machine domain*  
Authors: Johan Fabry, Zambrano Arturo, Gordillo Silvia  
Journal: SOFTWARE AND SYSTEMS MODELING, Vol. 15 (3), pp. 881 - 905.
4. *2016 Expressing aspectual interactions in design: evaluating three AOM approaches in the slot machine domain*  
Journal: SOFTWARE AND SYSTEMS MODELLING, Vol 15 (), pp, 881 - 905.  
Authors: Johan Fabry, Zambrano, A., Gordillo, S.
5. *2015 A Taxonomy of Domain-Specific Aspect Languages*  
Authors: Johan Fabry, Dinkelaker Tom, Noye Jacques, Eric Pierre Tanter  
Journal: ACM COMPUTING SURVEYS, Vol. 47 (3)
6. *2014 PHANtom: a modern aspect language for Pharo Smalltalk*  
Authors: Johan Fabry, Galdames Daniel  
Journal: SOFTWARE-PRACTICE & EXPERIENCE, Vol. 44 (4), pp. 393 - 412.

7. *2014* DIE: A Domain Specific Aspect Language for IDE Events  
 Authors: Johan Fabry, Romain Robbes, Denker Marcus
8. *2014* AspectMaps: Extending Moose to visualize AOP software  
 Authors: Johan Fabry, Kellens Andy, Denier Simon, Ducasse Stephane  
 Journal: SCIENCE OF COMPUTER PROGRAMMING, Vol. 79 (), pp. 6 - 22. 27
9. *2014* Gradual typing for Smalltalk  
 Authors: Allende Esteban, Callau Oscar, Johan Fabry, Eric Pierre Tanter, Denker Marcus  
 Journal: SCIENCE OF COMPUTER PROGRAMMING, Vol. 96 (1), pp. 52 - 69. 40
10. *2014* Seamless composition and reuse of customizable user interfaces with Spec  
 Authors: Van Ryseghem Benjamin, Ducasse Stephane, Johan Fabry  
 Journal: SCIENCE OF COMPUTER PROGRAMMING, Vol. 96 (1), pp. 34 - 51. 15
11. *2014* Cast Insertion Strategies for Gradually-Typed Objects  
 Authors: Allende Esteban, Johan Fabry, Eric Pierre Tanter  
 Journal: ACM SIGPLAN NOTICES, Vol. 49 (2), pp. 27 - 35.
12. *2014* Confined Gradual Typing  
 Authors: Allende Esteban, Johan Fabry, Garcia Ronald, Eric Pierre Tanter  
 Journal: ACM SIGPLAN NOTICES, Vol. 49 (10), pp. 251 - 270.
13. *2012* Expressing aspectual interactions in requirements engineering: Experiences, problems and solutions  
 Authors: Zambrano Arturo, Johan Fabry, Gordillo Silvia  
 Journal: SCIENCE OF COMPUTER PROGRAMMING, Vol. 78 (1), pp. 65 - 92. 35
14. *2010* Scoping strategies for distributed aspects  
 Authors: Eric Pierre Tanter, Johan Fabry, Douence Remi, Noye Jacques, Sudholt Mario  
 Journal: SCIENCE OF COMPUTER PROGRAMMING, Vol. 75 (12), pp. 1235 - 1261. 32
15. *2010* A FINE GRAINED ASPECT COORDINATION MECHANISM  
 Authors: Zambrano Arturo, Gordillo Silvia, Johan Fabry  
 Journal: INTERNATIONAL JOURNAL OF SOFTWARE ENGINEERING AND KNOWLEDGE ENGINEERING, Vol. 20 (7), pp. 1025 - 1042. 23
16. *2009* Infrastructure for domain-specific aspect languages: the ReLAX case study  
 Authors: Johan Fabry, Eric Pierre Tanter, DHondt T  
 Journal: IET Software, Vol. 3 (3), pp. 238 - 254. 35
17. *2009* Supporting Composition of Structural Aspects in an AOP Kernel  
 Authors: Eric Pierre Tanter, Johan Fabry  
 Journal: JOURNAL OF UNIVERSAL COMPUTER SCIENCE, Vol. 15 (3), pp. 620 - 647. 49
18. *2008* KALA: Kernel aspect language for advanced transactions  
 Authors: Johan Fabry, Eric Pierre Tanter, DHondt Theo  
 Journal: SCIENCE OF COMPUTER PROGRAMMING, Vol. 71 (3), pp. 165 - 180. 27
19. *2004* Language-independent detection of object-oriented design patterns  
 Authors: Johan Fabry, Mens T  
 Journal: COMPUTER LANGUAGES SYSTEMS & STRUCTURES, Vol. 30 (1-2), pp. 21 - 33. 19

#### **NON ISI JOURNALS**

1. *2011* Supporting Aspect Oriented Requirements Engineering for Large Documents  
 Authors: Arturo Zambrano, Julian Rousselot, Johan Fabry, Silvia Gordillo  
 Journal: Electronic Journal of SADIO, Vol. 10 (1), pp. 38 - 52.

## Other writings

### JOURNAL SECTIONS

1. *2009 Editorial for Special Section on Dependencies and Interactions with Aspects*  
Transactions on Aspect-Oriented Software Development, volume 5490, 2009, Springer-Verlag

### WORKSHOP PROCEEDINGS EDITOR

In total, I was co-organiser of seven workshops on Domain-Specific Aspect Languages and three workshops on Aspects, Dependencies and Interactions (but not all of these with published proceedings).

1. *2012 DSAL '12: Proceedings of the seventh workshop on Domain-Specific Aspect Languages*  
Tom Dinkelaker, Johan Fabry, Jacques Noyé. ACM Digital Library
2. *2009 Proceedings of the 4th workshop on Domain-Specific Aspect Languages*  
Thomas Cleenewerck, Johan Fabry, Anne-Francoise Lemeur, Jacques Noyé, Éric Tanter. ACM Digital Library
3. *2008 Summary of the 3rd workshop on Domain-Specific Aspect Languages*  
Thomas Cleenewerck, Jacques Noyé, Johan Fabry, Anne-Francoise Lemeur, Éric Tanter. ACM Digital Library
4. *2007 Aspects, Dependencies and Interactions*  
Springer Verlag Lecture Notes in Computer Science Volume 4906, 2008, pp 75-90
5. *2007 Summary of the 2nd workshop on Domain-Specific Aspect Languages*  
Thomas Cleenewerck, Jacques Noyé, Johan Fabry, Anne-Francoise Lemeur, Éric Tanter. ACM Digital Library

## Conference Papers

### ACM/IEEE INTERNATIONAL CONFERENCES

1. *2015 From Robots to Humans: Visualizations for Robot Sensor Data*  
IEEE 3rd Working Conference on Software Visualisation (VISSOFT 2015)  
Miguel Enrique Campusano Araya, Johan Fabry
2. *2013 Aspectual Source Code Analysis with GASR*  
13th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM '13)  
Johan Fabry, Coen De Roover, Viviane Jonckers
3. *2013 Design decisions in AspectMaps*  
First IEEE Working Conference on Software Visualisation (VISSOFT '13)  
Johan Fabry, Alexandre Bergel
4. *2011 AspectMaps: A Scalable Visualization of Join Point Shadows*  
19th IEEE International Conference on Program Comprehension (ICPC2011)  
Johan Fabry, Andy Kellens, Stephane Ducasse
5. *2011 Expressing Aspectual Interactions in Design: Experiences in the Slot Machine Domain*  
ACM/IEEE 14th International Conference on Model Driven Engineering Languages and Systems  
Johan Fabry, Arturo Zambrano, Silvia Gordillo
6. *2010 Expressing aspectual interactions in requirements engineering: experiences in the slot machine domain*  
ACM Symposium on Applied Computing  
Arturo Zambrano, Johan Fabry, Guillermo Jacobson, Silvia Gordillo
7. *2009 Expressive Scoping of Distributed Aspects*  
8th ACM International Conference on Aspect-Oriented Software Development  
Johan Fabry, Remi Douence, Jacques Noye, Mario Sudholt
8. *2008 Context distribution for supporting composition of applications in ubiquitous computing*  
ACM Symposium on Applied Computing  
Carlos Noguera, Ellen Van Paesschen, Carlos Parra, Johan Fabry

9. *2006 KALA: Kernel Aspect Language for Advanced Transactions*  
ACM Symposium on Applied Computing  
Johan Fabry, Theo D'Hondt

#### **OTHER INTERNATIONAL CONFERENCES**

1. *2014 Live Robot Programming*  
14th Ibero-American Conference on Artificial Intelligence (IBERAMIA 14)  
Johan Fabry, Miguel Enrique Campusano Araya

#### **LOCAL CONFERENCES**

1. *2016 Testing Physics Engines with Live Robot Programming*  
Software and Hardware Architectures for Robots Control, France  
Johan Fabry, Stephen Sinclair
2. *2015 Code Duplication in ROS launchfiles*  
34th International Conference of the Chilean Computer Science Society (SCCC)  
Pablo Ignacio Estefo Carrasco, Romain Robbes, Johan Fabry
3. *2012 Method Lookup Simulation with a Gradual Typing Language*  
31st International Conference of the Chilean Computer Science Society  
Esteban Allende, Johan Fabry
4. *2010 Supporting Aspect Oriented Requirements Engineering for Large Documents*  
Argentinean Symposium on Software Engineering (ASSE'10)  
Arturo Zambrano, Julian Rousselot, Johan Fabry, Silvia Gordillo
5. *2007 A Unified Mechanism for Improving Advanced Transaction Management in Web Services*  
XXVI International Conference of the Chilean Computer Science Society  
Sergio Castro, Johan Fabry, Kim Mens, Theo D'Hondt

#### **WORKSHOP PAPERS (SINCE 2007)**

1. *2014 Live Programming the Lego Mindstorms*  
International Workshop on Smalltalk Technologies (IWST 14)  
Johan Fabry, Miguel Enrique Campusano Araya
2. *2014 Towards Live Programming in ROS with PhaROS and LRP*  
Fifth International Workshop on Domain-Specific Languages and Models for Robotic Systems (DSLRob 2014)  
Pablo Estefo, Miguel Enrique Campusano Araya, Luc Fabresse, Johan Fabry, Jannik Laval, Noury Bouraqadi
3. *2012 Spec. A Framework for the Specification and Reuse of UIs and their Models*  
International Workshop on Smalltalk Technologies (IWST 12)  
Benjamin Van Ryseghem, Stephane Ducasse, Johan Fabry
4. *2011 Application optimization when using gradual typing*  
6th Workshop on Implementation, Compilation, Optimization of Object-Oriented Languages, Programs and Systems (ICOOOLPS '11)  
Esteban Allende, Johan Fabry
5. *2011 PHANtom: a Modern Aspect Language for Pharo Smalltalk*  
International Workshop on Smalltalk Technologies (IWST 11)  
Johan Fabry, Daniel Galdames
6. *2007 AmI: The Future is Now -- a position paper*  
3rd ECOOP workshop on Object Technology for Ambient Intelligence and Pervasive Computing (OT4AmI 2007)  
Johan Fabry, Carlos Noguera
7. *2007 ReLax: Implementing KALA over the Reflex AOP Kernel*  
2nd workshop on Domain-Specific Aspect Languages (DSAL '07)  
Johan Fabry, Eric Tanter, Theo D'Hondt

## **DEMONSTRATIONS IN INTERNATIONAL CONFERENCES**

### *1. 2016 Testing Physics Engines with Live Robot Programming*

IEEE 4th Working Conference on Software Visualization (VISSOFT 2016)

Johan Fabry, Stephen Sinclair

### *2. 2012 PHANtom: an aspect language for Pharo Smalltalk*

11th annual international conference on Aspect-oriented Software Development (AOSD '12)

Johan Fabry