

## Emmanuel Pietriga, Ph.D., HDR

**web:** <https://pages.saclay.inria.fr/emmanuel.pietriga>  
**orcid:** 0000-0002-9762-0462  
**e-mail:** emmanuel.pietriga@inria.fr  
**phone:** +33-1-69-15-34-66 (office) / +33 6 86 26 77 01 (cell)  
**nationality:** French  
**date of birth:** November 30th, 1976  
3 children

## Current Position

### Senior Research Scientist - DR2 INRIA (Institut National de Recherche en Informatique et en Automatique)



Since Oct. 2015: DR2

Jan. 2007 - Sep. 2015: CR1

Oct. 2004 - Dec. 2006: CR2

*Details of current activities and previous positions at Inria*

#### Since September 2018

- **Course Instructor (Chargé d'enseignement):** École Polytechnique, INF552 - Data Visualization
  - 36 hours, X-3A & M1/M2 students (40 to 60 in total)



#### Since August 2014

- **Team leader:** ILDA, INRIA Saclay - Île-de-France, joint with Université Paris-Saclay & CNRS
  - Average of 4 faculty members, 6 PhD students, 1 post-doc, 2 engineers
- **Scientific advisor:** Visualization lab, INRIA Chile

#### July 2012 - July 2014

- **Team leader:** Project Massive Data
- INRIA Chile, Santiago de Chile
- Average of 1 faculty member, 1 PhD student (visiting), 4 engineers over the period.
- Large proportion of engineers as INRIA Chile is oriented towards transfer activities.



#### August 2010 - July 2012

- **Interim team leader (responsable par interim):** In-Situ
- INRIA Saclay - Île-de-France / LRI (Université Paris-Sud & CNRS)
- Average of 8 faculty members, 3 postdocs, 7 PhD students, 3 engineers over the period.

#### October 2004 - July 2010

- **Team member:** In-Situ
- INRIA Saclay - Île-de-France / LRI (Université Paris-Sud & CNRS)

## Work Experience

September 2003 -  
September 2004

### Software Engineer, Nuxeo

Development of Web-based enterprise content management applications (Python, Zope, CPS)  
Paris, France



December 2002 -  
August 2003

### Postdoctorate Fellow, MIT (Massachusetts Institute of Technology) / W3C (World Wide Web Consortium)

Visual transformation of Semantic Web data represented as node-link diagrams  
Member of the Semantic Web Advanced Development team, World Wide Web Consortium (W3C) and of the Decentralized Information Group at MIT CSAIL.  
Boston, MA, USA



March 1999 -  
September 2002

### Research Engineer, Xerox Research Centre Europe

Development of a zoomable user interface toolkit and a visual language environment for XML document transformations  
CIFRE Ph.D. contract funded by ANRT  
Grenoble, France



---

## Education

2012

### HDR (Habilitation à Diriger des Recherches) in Computer Science, Université Paris-Sud

*Languages and Interaction Techniques for the Visualization and Manipulation of Massive Datasets*

INRIA Saclay - Île-de-France / Laboratoire de Recherche en Informatique

Jury Members:

- Lynda Hardman, CWI (Centrum Wiskunde & Informatica), examinateur
- Robert J.K. Jacob, Tufts University, rapporteur
- David R. Karger, MIT (Massachusetts Institute of Technology), examinateur
- Wendy E. Mackay, INRIA, examinateur
- Laurence Nigay, Université Joseph Fourier Grenoble I, rapporteur
- Christine Paulin, Université Paris-Sud, président
- Claude Puech, Université Paris-Sud & INRIA Chile, examinateur
- Mary Beth Rosson, Penn State University, rapporteur



1999-2002

### Ph.D. in Computer Science, INPG (Institut National Polytechnique de Grenoble)

*Visual programming languages and environments applied to structured document processing*

Xerox Research Centre Europe / INRIA Rhône-Alpes (research team Opéra)  
Grenoble, France

Advisors: Vincent Quint and Jean-Yves Vion-Dury

Jury Members:

- Christine Collet, Institut National Polytechnique de Grenoble, président
- Paolo Bottoni, Università di Roma Sapienza, rapporteur
- Jacques Le Maitre, Université de Toulon, rapporteur
- Vincent Quint, INRIA Rhône-Alpes, directeur de thèse
- Jean-Yves Vion-Dury, Xerox Research Centre Europe, examinateur



1996-1999

### Engineering Degree in Computer Science and Control, ESIA (Ecole Supérieure d'Ingénieurs d'Annecy)

*Computer Science, control (automation, electronics), mechanics*

Section AZI: Automatique et Informatique Industrielle  
Annecy, France



---

## Short-Term Visits (funded by hosting organization)

December 2010,  
June 2011,  
November 2011

### ALMA (Atacama Large Millimeter/submillimeter Array), ESO (European Southern Observatory)

Chajnantor plateau, Chilean Andes, Chile



March 2011

### Expanded Very Large Array, NRAO (National Radio Astronomy Observatory)

Socorro, NM, USA



February 2011

### JAIST (Japan Advanced Institute of Science and Technology)

Nomi, Ishikawa, Japan



November 2010

### SKA (Square Kilometer Array) South Africa

Cape Town, South Africa



December 2009

### ALMA (Atacama Large Millimeter/submillimeter Array) and VLT (Very Large Telescope), ESO (European Southern Observatory)

Chajnantor plateau (ALMA) and Mount Paranal (VLT), Chilean Andes, Chile



March 2006

### Universitat Politècnica de València

Valencia, Spain



September 2001 -  
January 2002

### MIT (Massachusetts Institute of Technology) / W3C (World Wide Web Consortium)

Boston, MA, USA







































## Publications







Click on one of the icons to get the document (multiple icons indicate multiple sources)  
 (ACM Digital Library)  (IEEE Xplore)  (IEEE Computer Society Digital Library)  (Springer Link)  (HAL-INRIA Open Archive)  (arXiv)

Note: in the field of Human Computer Interaction, conferences are considered the primary method of publication. The [ACM CHI](#) and [UIST](#) conferences are particularly selective and are considered journal level work by the ACM/SIGCHI.

### Refereed Papers in International Journals and Magazines




- V. Peña-Araya, T. Xue, E. Pietriga, L. Amsaleg, A. Bezerianos, **HyperStorylines: Interactively Untangling Dynamic Hypergraphs**, *Information Visualization Journal*, Sage, 2021.  
- H. Romat, C. Appert, E. Pietriga, **Expressive Authoring of Node-Link Diagrams with Graphies**, *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, Volume 27, Number 4, pages 2329-2340, April 2021.   
- M. Destandau, C. Appert, E. Pietriga, **S-Paths: Set-Based Visual Exploration of Linked Data Driven by Semantic Paths**, *Semantic Web Journal (SWJ)*, Volume 12, Number 1, pages 99-116, 2021.  
- V. Peña-Araya, E. Pietriga, A. Bezerianos, **A Comparison of Visualizations for Identifying Correlation over Space and Time**, *IEEE Transactions on Visualization and Computer Graphics (TVCG/InfoVis '19)*, Volume 26, Number 1, pages 375-385, January 2020.    
- M.-J. Lobo, C. Appert, E. Pietriga, **Animation Plans for Before-and-After Satellite Images**, *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, Volume 25, Number 2, pages 1347-1360, February 2019.   
- M.-J. Lobo, C. Appert, E. Pietriga, **MapMosaic: Dynamic Layer Compositing for Interactive Geovisualization**, *International Journal of Geographical Information Science (IJGIS)*, Volume 31, Number 9, pages 1818-1845, May 2017.  
- A.-S. Dadzie, E. Pietriga, **Visualisation of Linked Data – Reprise**, *Semantic Web Journal (SWJ)*, Introduction to the special issue on Linked Data Visualization, Volume 8, Number 1, pages 1-21, 2017.  
- C. Appert, O. Chapuis, E. Pietriga, M.-J. Lobo, **Reciprocal Drag-and-Drop**, *ACM Transactions on Computer-Human Interactions (ToCHI)*, Volume 22, Issue 6, pages 29:1-29:36, September 2015.  
- M. Nancel, E. Pietriga, O. Chapuis, M. Beaudouin-Lafon, **Mid-air Pointing on Ultra-Walls**, *ACM Transactions on Computer-Human Interactions (ToCHI)*, Volume 22, Issue 5, pages 21:1-21:62, August 2015.  
- B. Bach, E. Pietriga, J.-D. Fekete, **GraphDiaries: Animated Transitions and Temporal Navigation for Dynamic Networks**, *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, Volume 20, Issue 5, pages 740-754, May 2014.   
- B. Bach, E. Pietriga, I. Liccardi, **Visualizing Populated Ontologies with OntoTrix**, *International Journal on Semantic Web and Information Systems*, Volume 9, Issue 4, pages 17-40, IGI, 2013.  
- M. Beaudouin-Lafon, O. Chapuis, J. Eagan, T. Gjerlufsen, S. Huot, C. Klokmoose, W. Mackay, M. Nancel, E. Pietriga, C. Pillias, R. Primet, J. Wagner, **Multi-surface Interaction in the WILD Room**, *IEEE Computer*, Volume 45, Issue 4, pages 24-32, April 2012.   
- J. Zhao, F. Chevalier, E. Pietriga, R. Balakrishnan, **Exploratory Analysis of Time-series with ChronoLenses**, *IEEE Transactions on Visualization and Computer Graphics (TVCG/InfoVis '11)*, Volume 17, Issue 12, pages 2422-2431, December 2011.   
- E. Pietriga, O. Bau, C. Appert, **Representation-Independent In-Place Magnification with Sigma Lenses**, *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, Volume 16, Issue 3, pages 455-467, May/June 2010.   

### Refereed Papers in International Conference Proceedings

- E. Brasier, E. Pietriga, C. Appert, **AR-enhanced Widgets for Smartphone-centric Interaction**, *MobileHCI '21: Proceedings of the 23rd International Conference on Human Computer Interaction with Mobile Devices and Services*, September 2021, Toulouse, France. 
- V. Peña-Araya, A. Bezerianos, E. Pietriga, **A Comparison of Geographical Propagation Visualizations**, *CHI '20: Proceedings of the 38th SIGCHI conference on Human Factors in computing systems*, pages 223:1–223:14, April 2020, Honolulu, HI, USA.  
- H. Romat, E. Pietriga, N. Henry-Riche, K. Hinckley, C. Appert, **SpaceInk: Making Space for In-Context Annotations**, *UIST '19: Proceedings of the 32nd Symposium on User Interface Software and Technology*, pages 871-882, October 2019, New Orleans, LA, USA.  
- H. Romat, N. Henry-Riche, K. Hinckley, B. Lee, C. Appert, E. Pietriga, C. Collins, **ActiveInk: (Th)Inking with Data**, *CHI '19: Proceedings of the 37th SIGCHI conference on Human Factors in computing systems*, pages 42:1–42:13, May 2019, Glasgow, UK - **Best paper award nominee (honorable mention)**.  
- H. Romat, D. Lebout, E. Pietriga, C. Appert, **Influence of Color and Size of Particles on their Perceived Speed in Node-Link Diagrams**, *INTERACT '19, 17th IFIP TC.13 International Conference on Human-Computer Interaction*, pages 619-637, September 2019, Paphos, Cyprus - **Best paper award**.  
- E. Pietriga, H. Gözükan, C. Appert, M. Destandau, Š. Čebirić, F. Goasdoué, I. Manolescu, **Browsing Linked Data Catalogs with LODAtlas**, *ISWC '18: Proceedings of the 17th International Semantic Web Conference*, pages 137-153, October 2018, Monterey, CA, USA.  
- C. Appert, E. Pietriga, E. Bartenlian, R. Morales, **Custom-made Tangible Interfaces with TouchTokens**, *AVI '18: Proceedings of the International Working Conference on Advanced Visual Interfaces*, pages 15:1–15:9, May 2018, Castiglione della Pescaia, Italy.  
- H. Romat, C. Appert, B. Bach, N. Henry-Riche, E. Pietriga, **Animated Edge Textures in Node-Link Diagrams: a Design Space and Initial Evaluation**, *CHI '18: Proceedings of the 36th SIGCHI conference on Human Factors in computing systems*, pages 187:1–187:13, April 2018, Montréal, Canada.  
- V. Rusňák, C. Appert, O. Chapuis, E. Pietriga, **Designing Coherent Gesture Sets for Multi-scale Navigation on Tabletops**, *CHI '18: Proceedings of the 36th SIGCHI conference on Human Factors in computing systems*, pages 142:1-142:12, April 2018, Montréal, Canada.  
- V. Ivanova, B. Bach, E. Pietriga, P. Lambrich, **Alignment Cubes: Towards Interactive Visual Exploration and Evaluation of Multiple Ontology Alignments**, *ISWC '17: Proceedings of the 16th International Semantic Web Conference*, pages 400-417, October 2017, Vienna, Austria.  
- R. Morales, C. Appert, G. Bailly, E. Pietriga, **Passive yet Expressive TouchTokens**, *CHI '17: Proceedings of the 35th SIGCHI conference on Human Factors in computing systems*, pages 3741-3745, May 2017, Denver, CO, USA.  
- E. Pietriga, F. del Campo, A. Ibsen, R. Primet, C. Appert, O. Chapuis, M. Hempel, R. Muñoz, S. Eyheramendy Duerr, A. Jordan, H. Dole, **Exploratory Visualization of Astronomical Data on Ultra-high-resolution Wall Displays**, invited paper, *Astronomical Telescopes and Instrumentation, SPIE*, pages 0W:1-0W:15, June 2016, Edinburgh, UK.  
- I. Sadeh, I. Oya, J. Schwarz, E. Pietriga, **Prototyping the Graphical User Interface for the Operator of the Cherenkov Telescope Array**, *Astronomical Telescopes and Instrumentation, SPIE*, pages 0X:1-0X:9, June 2016, Edinburgh, UK.   
- R. Morales, C. Appert, G. Bailly, E. Pietriga, **TouchTokens: Guiding Touch Patterns with Passive Tokens**, *CHI '16: Proceedings of the 34th SIGCHI conference on Human Factors in computing systems*, pages 4189-4202, May 2016, San Jose, CA, USA - **Best paper award nominee (honorable mention)**.  
- M.-J. Lobo, E. Pietriga, C. Appert, **An Evaluation of Interactive Map Comparison Techniques**, *CHI '15: Proceedings of the 33rd SIGCHI conference on Human Factors in computing systems*, pages 3573-3582, April 2015, Seoul, South Korea - **Best paper award nominee (honorable mention)**.  
- J. Alvina, C. Appert, O. Chapuis, E. Pietriga, **RouteLens: Easy Route Following for Map Applications**, *AVI '14: Proceedings of the 12th working conference on Advanced visual interfaces*, pages 125-128, May 2014, Como, Italy.  
- B. Bach, E. Pietriga, J.-D. Fekete, **Visualizing Dynamic Networks with Matrix Cubes**, *CHI '14: Proceedings of the 32nd SIGCHI conference on Human Factors in computing systems*, pages 877-886, April 2014, Toronto, Canada.  
- E. Pietriga, G. Filippi, L. Veliz, F. del Campo, J. Ibsen, **A Web-based Dashboard for the High-level Monitoring of ALMA**, invited paper, *Astronomical Telescopes and Instrumentation, SPIE*, pages 1B:1-1B:12, June 2014, Montréal, Canada.  
- D. Spelmezan, C. Appert, O. Chapuis, E. Pietriga, **Controlling Widgets with one Power-Up Button**, *UIST '13: Proceedings of the 26th Symposium on User Interface Software and Technology*, pages 71-74, October 2013, St Andrews, UK.  
- C. Pindat, E. Pietriga, O. Chapuis, C. Puech, **Drilling into Complex 3D Models with Gimlenses**, *VRST '13: Proceedings of the 19th Symposium on Virtual Reality Software and Technology*, pages 223-230, October 2013, Singapore - **Best paper award**.  

- D. Spelmezan, C. Appert, O. Chapuis, E. Pietriga, **Side Pressure for Bidirectional Navigation on Small Devices**, *MobileHCI '13: Proceedings of the 15th International Conference on Human Computer Interaction with Mobile Devices and Services*, pages 11-20, August 2013, Munich, Germany 
- M. Nancel, O. Chapuis, E. Pietriga, X.-D. Yang, P. Irani, M. Beaudouin-Lafon, **High-Precision Pointing on Large Wall Displays using Small Handheld Devices**, *CHI '13: Proceedings of the 31st SIGCHI conference on Human Factors in computing systems*, pages 831-840, April 2013, Paris, France 
- C. Pindat, E. Pietriga, O. Chapuis, C. Puech, **JellyLens: Content-Aware Adaptive Lenses**, *UIST '12: Proceedings of the 25th Symposium on User Interface Software and Technology*, pages 261-270, October 2012, Cambridge, USA 
- E. Pietriga, P. Cubaud, J. Schwarz, R. Primet, M. Schilling, D. Barkats, E. Barrios, B. Vila Vilaro, **Interaction Design Challenges and Solutions for ALMA Operations Monitoring and Control**, invited paper, *Astronomical Telescopes and Instrumentation, SPIE*, pages 10:1-10:16, July 2012, Amsterdam, the Netherlands 
- R. A. de Almeida, C. Pillias, E. Pietriga, P. Cubaud, **Looking behind Bezels: French Windows for Wall Displays**, *AVI '12: Proceedings of the 11th working conference on Advanced visual interfaces*, pages 124-131, ACM Press, May 2012, Capri, Italy 
- C. Appert, O. Chapuis, E. Pietriga, **Dwell-and-Spring: Undo for Direct Manipulation**, *CHI '12: Proceedings of the 30th ACM SIGCHI conference on Human Factors in computing systems*, 10 pages, ACM Press, May 2012, Austin, USA 
- E. Pietriga, S. Huot, M. Nancel, R. Primet, **Rapid Development of User Interfaces on Cluster-Driven Wall Displays with jBricks**, *EICS '11: Proceedings of the 3rd ACM SIGCHI symposium on Engineering interactive computing systems*, pages 185-190, June 2011, Pisa, Italy 
- M. Nancel, J. Wagner, E. Pietriga, O. Chapuis, W. Mackay, **Mid-air Pan-and-Zoom on Wall-sized Displays**, *CHI '11: Proceedings of the 29th ACM SIGCHI conference on Human Factors in computing systems*, pages 177-186, ACM Press, May 2011, Vancouver, Canada - **Best paper award** 
- B. Bach, E. Pietriga, I. Liccardi, G. Legostaev, **OntoTriX: A Hybrid Visualization for Populated Ontologies**, *WWW '11: Proceedings of the 20th international conference companion on World wide web*, pages 177-180, ACM Press, March 2011, Hyderabad, India 
- C. Appert, O. Chapuis, E. Pietriga, **High-precision Magnification Lenses**, *CHI '10: Proceedings of the 28th ACM SIGCHI conference on Human Factors in computing systems*, pages 273-282, ACM Press, April 2010, Atlanta, USA 
- O. Chapuis, J.-B. Labrune, E. Pietriga, **DynaSpot: Speed-Dependent Area Cursor**, *CHI '09: Proceedings of the 27th ACM SIGCHI conference on Human Factors in computing systems*, pages 1391-1400, ACM Press, April 2009, Boston, USA - **Best paper award nominee (honorable mention)** 
- T. Moscovich, F. Chevalier, N. Henry, E. Pietriga, J.-D. Fekete, **Topology-Aware Navigation in Large Networks**, *CHI '09: Proceedings of the 27th ACM SIGCHI conference on Human Factors in computing systems*, pages 2319-2328, ACM Press, April 2009, Boston, USA 
- E. Pietriga, C. Appert, **Sigma Lenses: Focus-Context Transitions Combining Space, Time and Translucence**, *CHI '08: Proceedings of the 26th ACM SIGCHI conference on Human Factors in computing systems*, pages 1343-1352, ACM Press, April 2008, Florence, Italy 
- E. Pietriga, C. Appert, M. Beaudouin-Lafon, **Pointing and Beyond: an Operational and Preliminary Evaluation of Multi-scale Searching**, *CHI '07: Proceedings of the 25th ACM SIGCHI conference on Human Factors in computing systems*, pages 1215-1224, ACM Press, April 2007, San Jose, CA, USA 
- E. Pietriga, C. Bizer, D. Karger, R. Lee, **Fresnel: A Browser-Independent Presentation Vocabulary for RDF**, *ISWC '06: Proceedings of the 5th International Semantic Web Conference*, pages 158-171, Springer, November 2006, Athens, GA, USA  
- E. Pietriga, **Semantic Web Data Visualization with Graph Style Sheets**, *Proceedings of the ACM Symposium on Software Visualization (SoftVis'06)*, pages 177-178, ACM Press, September 2006, Brighton, UK 
- S. Cohen-Boulakia, C. Froidevaux, E. Pietriga, **Selecting Biological Data Sources and Tools with XPR, a Path Language for RDF**, *Pacific Symposium on Biocomputing (PSB), Session Semantic Webs for Life Sciences*, pages 116-127, January 2006, Maui, Hawaii, USA 
- E. Pietriga, **A Toolkit for Addressing HCI Issues in Visual Language Environments**, *IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC'05)*, pages 145-152, IEEE Computer Society, September 2005, Dallas, TX, USA  
- J.-Y. Vion-Dury, V. Lux and E. Pietriga, **Experimenting with the Circus language for XML modeling and transformation**, *ACM Symposium on Document Engineering*, pages 82-87, ACM Press, November 2002, Mc Lean (VA), USA 
- E. Pietriga, V. Quint and J.-Y. Vion-Dury, **VXT: A Visual Approach to XML Transformations**, *ACM Symposium on Document Engineering*, pages 1-10, ACM Press, November 2001, Atlanta, USA 
- E. Pietriga and J.-Y. Vion-Dury, **VXT: Visual XML Transformer**, *IEEE Symposium on Human Centric Computing*, pages 404-405, IEEE Computer Society, September 2001, Stresa, Italy  
- J.-Y. Vion-Dury and E. Pietriga, **A Formal Study of a Visual Language for Document Type Definitions**, *IEEE Symposium on Visual Languages and Formal Methods (HCC)*, pages 52-59, IEEE Computer Society, September 2001, Stresa, Italy  







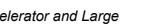
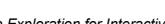





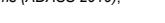

#### Proceedings Editing

- E. Pietriga, K. Luyten, Y. Jansen, *Proceedings of the ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS '18)*, June 2018 
- Christopher Hundhausen, E. Pietriga, P. Diaz, M. B. Rosson, *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '10)*, 276 pages, September 2010  

#### Refereed Papers in National Journals






- E. Pietriga, R. Lee, **Langages et outils pour la visualisation et la manipulation de données du Web sémantique**, *Technique et Science Informatiques (TSI)*, Vol. 28(2), pages 173-197, March 2009, Hermès, Lavoisier  

#### Refereed Posters, Demos, Workshop Papers (archived in proceedings)






- Irène Burger, Ioana Manolescu, Emmanuel Pietriga, Fabian Suchanek, **Toward Visual Interactive Exploration of Heterogeneous Graphs**, *Workshop Proceedings of the EDBT/ICDT 2020 Joint Conference*, 4 pages, March 2020, Copenhagen, Denmark 
- A. Kamakshidasan, J. Galaz, R. Cienfuegos, A. Rousseau, E. Pietriga, **Comparative Visualization of Deep Water Asteroid Impacts on Ultra-high-resolution Wall Displays with Seawall**, *IEEE Vis Poster Program / SciVis Contest*, pages 142-145, October 2018, Berlin, Germany  
- V. Ivanova, B. Bach, E. Pietriga, P. Lambrix, **Alignment Cubes: Interactive Visual Exploration and Evaluation of Multiple Ontology Alignments**, *Proceedings of the ISWC 2017 Posters & Demonstrations Track: Collected Abstracts*, 4 pages, October 2017, Vienna, Austria  
- I. Sadeh, I. Oya, J. Schwarz, E. Pietriga, **The Graphical User Interface of the Operator of the Cherenkov Telescope Array**, *16th International Conference on Accelerator and Large Experimental Control Systems (ICALPCS)*, October 2017, Barcelona, Spain  
- T. Onorati, P. Isenberg, A. Bezerianos, E. Pietriga, P. Diaz, **WallTweet: A Knowledge Ecosystem for Supporting Situation Awareness**, *DEXIS: Workshop on Data Exploration for Interactive Surfaces at ITS '15*, November 2015, Madeira, Portugal 
- T.-C. Shen, R. Soto, N. Ovando, S. Fuica, A. Robles, A. Schemrl, G. Vélez, J. F. Ibsen, G. Filippi, E. Pietriga, **Exploring Remote Operation for ALMA Observatory**, *Astronomical Telescopes and Instrumentation, SPIE*, June 2014, Montréal, Canada 
- B. Bach, E. Pietriga, J.-D. Fekete, **Visualizing Dense Dynamic Networks with Matrix Cubes**, *VisWeek (SciVis/InfoVis/VAST) Poster Program*, October 2013, Atlanta, USA - **Best poster award** 
- B. Bach, E. Pietriga, J.-D. Fekete, **Animated Transitions and Navigation in Dynamic Networks**, *VisWeek (SciVis/InfoVis/VAST) Poster Program*, October 2012, Seattle, USA 
- M. Schilling, R. Primet, E. Pietriga, J. Schwarz, **Human Computer Interaction in the ALMA Control Room**, *Astronomical Data Analysis Software and Systems (ADASS)*, November 2011, Paris, France 
- J. Schwarz, E. Pietriga, M. Schilling, P. Grosbol, **Goodbye to WIMPs: A Scalable Interface for ALMA Operations**, *Astronomical Data Analysis Software and Systems (ADASS 2010)*, November 2010, Boston, USA 
- B. Bach, G. Legostaev, E. Pietriga, **Visualizing Populated Ontologies with OntoTriX**, *Proceedings of the ISWC 2010 Posters & Demonstrations Track: Collected Abstracts*, pages 85-88, November 2010, Shanghai, China 
- C. Bizer, R. Lee, E. Pietriga, **Fresnel: A Browser-Independent Presentation Vocabulary for RDF**, *Second International Workshop on Interaction Design and the Semantic Web*, November 2005, Galway, Ireland 

#### Specialized Journals and Magazines (dissemination of scientific knowledge)

- G. Ribat, J.-P. Cointet, E. Pietriga, **Les stratégies de recherche agronomique révélées par l'analyse des publications**, *La Recherche*, December 2016 

- E. Pietriga, F. del Campo, A. Ibsen, R. Primet, C. Appert, O. Chapuis, M. Hempel, R. Muñoz, S. Eyheramendy Duerr, A. Jordan, H. Dole, **Ultra-high-resolution walls for visualizing very large datasets**, *SPIE Newsroom*, May 2016  
- M.-J. Lobo, E. Pietriga, C. Puech, **Visualización de Big Data en Alta Resolución a Disposición de la Comunidad Científica y la Industria Chilena**, *Bits de Ciencia*, pages 46-51, January 2015 
- M. Beaudoin-Lafon, E. Pietriga, W. Mackay, S. Huot, M. Nancel, C. Pillias, R. Primet, **131 millions de pixel qui font le mur**, *Plein Sud Spécial Recherche 2010-2011*, pages 140-147, 2011
- E. Pietriga, **Styling RDF Graphs with GSS**, *XML.com*, 3 december 2003  

## Other Publications

- Raphaëlle Lapôtre, Marie Destandau, Emmanuel Pietriga, **Proposing rich views of linked open data sets : the S-paths prototype and the visualization of FRBRized data in data.bnf.fr**, *Semantic Web in Libraries (SWIB '19)*, November 2019, Hamburg, Germany
- E. Pietriga, **Languages and Interaction Techniques for the Visualization and Manipulation of Massive Datasets**, *Université Paris-Sud* (HDR dissertation), June 2012, Paris, France 
- M. Nancel, E. Pietriga, M. Beaudouin-Lafon **Precision Pointing for Ultra-High-Resolution Wall Displays**, *INRIA Research Report RR-7624*, May 2011 
- E. Pietriga, **Fresnel Selector Language for RDF (FSL)**, *Semantic Web Interest Group*, 18 November 2005 
- C. Bizer, R. Lee, E. Pietriga, **Fresnel - Display Vocabulary for RDF - User Manual**, *Semantic Web Interest Group*, 30 June 2005 
- E. Pietriga, **Environnements et langages de programmation visuels pour le traitement de documents structurés**, *Institut National Polytechnique de Grenoble (Ph.D. thesis)*, November 2002, Grenoble, France 

## Prizes and Awards

- **Honorable mention at ACM CHI 2019** for *ActiveInk: (Th)Inking with Data*. Awarded to the top 5% of all 2960 submissions.
- **Best paper + best doctoral student paper awards at INTERACT 2019** for *Influence of Color and Size of Particles on their Perceived Speed in Node-Link Diagrams*.
- **Honorable mention at ACM CHI 2016** for *TouchTokens: Guiding Touch Patterns with Passive Tokens*. Awarded to the top 5% of all 2325 submissions.
- **Honorable mention at ACM CHI 2015** for *An Evaluation of Interactive Map Comparison Techniques*. Awarded to the top 5% of all 2150 submissions.
- **PEDR** (Prime d'Encadrement Doctoral et de Recherche) INRIA, 2015-2018 (groupe chercheurs confirmés), 2019-2022 (groupe senior DR).
- **Best paper award at ACM VRST 2013** for *Drilling into Complex 3D Models with Gimlenses*.
- **Best poster award at IEEE InfoVis 2013** for *Visualizing Dense Dynamic Networks with Matrix Cubes*.
- **Best paper award at ACM CHI 2011** for *Mid-air Pan-and-Zoom on Wall-sized Displays*. Awarded to the top 1% of all 1540 submissions.
- **Honorable mention at ACM CHI 2009** for *DynaSpot: Speed-Dependent Area Cursor*. Awarded to the top 5% of all 1130 submissions.
- **PhD thesis prize (Prix de thèse) INPG 2004**, awarded on May 12th, 2005

## Talks

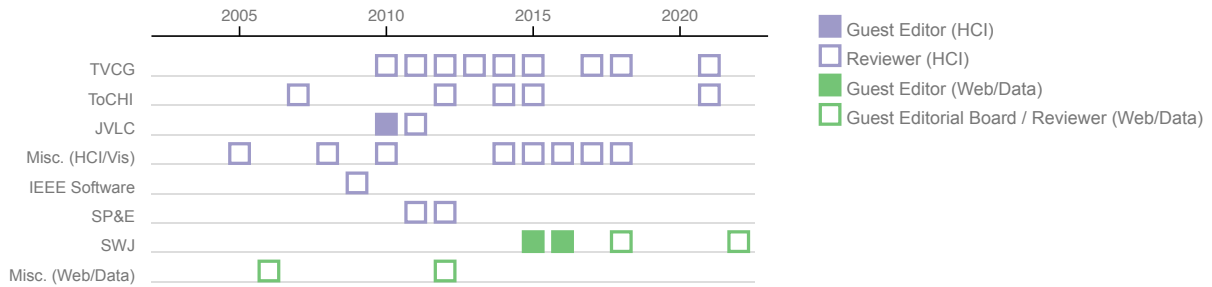
Invited talks, excluding talks given at conferences to present papers.

- E. Pietriga, **Créativité et visualisation de réseaux sous formes de diagrammes noeuds-liens**, *École d'été de cartographie et visualisation*, July 2019, Lyon, France
- E. Pietriga and O. Chapuis, **Monitoring Air Quality in Korea's Metropolises on Ultra-High Resolution Wall-Sized Displays**, *Asia Data Week, International Workshop on Urban Data Science and Technology*, November 2017, Jeju, South Korea
- E. Pietriga, **Visualisation et analyse collaborative de masses de données sur mur d'écrans ultra-haute-résolution**, *Académie du Renseignement*, June 2017, École Militaire, Paris
- E. Pietriga, **Advances in Human-Computer Interaction for Operations Monitoring and Control & Exploratory Data Analysis**, *III Taller Astroingeniería*, November 2015, Santiago de Chile
- E. Pietriga, **Interactive, collaborative visualization of large datasets on ultra-high-resolution wall-sized displays**, March 2015, Viseo R&D, Grenoble, France
- E. Pietriga, **Large Data Visualization**, *Jornada anual de computación visual*, December 2013, Universidad de los Andes, Bogotá, Colombia
- E. Pietriga, **Development of a Dashboard for the ALMA radio-observatory using Open Source Web Technologies**, *Data Tuesday Cl*, June 2013, Universidad Diego Portales, Santiago de Chile
- E. Pietriga, **Interagir avec l'invisible**, *Unithé ou café*, *INRIA Saclay -- Ile-de-France*, February 2013, Palaiseau, France
- E. Pietriga, **Information Visualization and the Web of Data**, *Seminario Open Data*, January 2013, Santiago de Chile
- E. Pietriga, **Information Visualization and the Web of Data**, *Data Tuesday Cl*, January 2013, Movistar Innova, Santiago de Chile
- E. Pietriga, **Interactive Visualization of Massive Datasets on Ultra-high-resolution Wall-sized Displays**, *SCIAN Lab, Facultad de Medicina, Universidad de Chile*, December 2012, Santiago de Chile
- E. Pietriga, **Interfaces graphiques innovantes pour la visualisation de masses de données et le contrôle de systèmes complexes**, *SIGCHI Toulouse Local Chapter*, June 2012, Toulouse, France
- E. Pietriga, **Mid-air Interaction with Wall-sized Displays**, *Workshop Ubimedia, Institut Telecom / Alcatel Lucent*, December 2011, Paris, France
- E. Pietriga, **Interacting with Wall-sized Displays**, *New York University*, September 2011, NYC, USA
- E. Pietriga, **Making ALMA's Operations Monitoring & Control Graphical User Interfaces Scalable**, *Universidad de Chile*, June 2011, Santiago de Chile
- E. Pietriga, **Interacting with Wall-sized Displays**, *IT University of Copenhagen*, June 2011, Copenhagen, Denmark
- E. Pietriga, **HCI and Information Visualization Research Overview and its application to ALMA**, *National Radio Astronomy Observatory*, March 2011, Socorro, NM, USA
- P. Cubaud, E. Pietriga, **HCI and Information Visualization Research: an Overview**, *SKA South Africa*, November 2010, Cape Town, South Africa
- E. Pietriga, **HCI state-of-the-art and what it means for ALMA**, *European Southern Observatory*, March 2010, Garching, Germany
- E. Pietriga, **Visualisation interactive de données massives sur mur d'écran très haute résolution**, *Thales Research & Technology*, November 2009, France
- E. Pietriga, **WILD : une plate-forme pour la visualisation interactive de grandes masses de données scientifiques**, *Séminaire Apple Research and Technology Support (ARTS)*, November 2009, Paris, France
- E. Pietriga, **Visualisation et manipulation de données du Web sémantique**, *INRIA Sophia Antipolis*, October 2007, France
- E. Pietriga, **Semantic Web Technologies and Human-Computer Interaction Techniques applied to Bioinformatics**, *Universidad Politécnica de Valencia*, March 2006, Valencia, Spain
- W.E. Mackay and E. Pietriga, **Project In Situ + Presenting Semantic Web data**, *Xerox Research Centre Europe*, March 2005, Grenoble, France
- J. Kahan, M.-R. Koivunen, E. Pietriga, R. Swick, **Cross-Application Data Interaction: Shared Bookmarks and IsaViz**, *WWW 2003, the 12th World Wide Web Conference (Developer's day)*, May 2003, Budapest, Hungary
- E. Pietriga **IsaViz: a Visual Environment for Browsing and Authoring RDF Models**, *WWW 2002, the 11th World Wide Web Conference (Developer's day)*, May 2002, Hawaii, USA
- E. Pietriga, **Visual Languages and Interactive Architectures Applied to Structured Document Transformations**, *Oregon State University*, September 2000, Corvallis, OR, USA

## Evaluation of Research

### Reviewing

#### Journals



#### Conferences



#### Books



### Evaluation committees and invited expertise

- Evaluator for the European Research Council  
ERC Advanced Grant PE6 Computer Science and Informatics, 2018 call, 2020 call
- Evaluator for European Commission's H2020 Programme  
Leadership in Enabling and Industrial Technologies - Space RIA, 2017
- Evaluator for the Sponsored Program for Industrial Data Science (EDF & Thales)  
Fondation Mathématique Jacques Hadamard/IRSDI, 2016
- Evaluator for European Commission's H2020 Programme  
Future and Emerging Technologies Open Scheme RIA, 2015
- Referee for the appel générique, ANR (French National Research Agency), 2015
- Evaluator for European Commission's 7th Framework Programme  
Future and Emerging Technologies Open Scheme, 2013
- Expert reviewer for the New Eurasia Foundation  
Russian Federation's call Measures to Attract Leading Scientists to Russian Educational Institutions, 2011, 2013
- Referee for the PDOC call, ANR (French National Research Agency), 2011
- Expert reviewer for an ongoing European Commission 7th Framework Programme project  
Strategic Objective 4.2: Intelligent Content and Semantics, 2010, 2011
- Evaluator for the SEE-ERA.NET PLUS Joint Call for European Research Projects, 2010
- Referee for the Marsden Fund, Royal Society of New Zealand, 2009
- Evaluator for European Commission's 7th Framework Programme  
FP7 ICT Call 3, Strategic Objective 4.2: Intelligent Content and Semantics, 2008
- Evaluator for European Commission's 7th Framework Programme  
FP7 ICT Call 1, Strategic Objective 4.2: Intelligent Content and Semantics, 2007
- Expert reviewer for Paris Sciences et Lettres, Appel à projets structurants, 2014
- Participant in the evaluation of a project for research theme MIS (Modélisation, Interaction, Simulation), CPER (Contrat de Projet Etat-Région) for Région Lorraine  
2007

### Habilitation (HDR) Jury Membership

- Guillaume Touya, IGN, Université Paris-Est (inspector/examineur - 2017)

### PhD Jury Membership

- Matthieu Viry, Université Grenoble-Alpes (rapporteur - 2021)
- Thibault Raffailac, Université de Lille (examineur - 2019)
- University of Swinburne, Australia (rapporteur - 2018)
- Kashyap Todi, Hasselt University, Belgium (rapporteur - 2018)
- Lonni Besançon, INRIA / CNRS / Université Paris-Saclay (président du jury - 2017)
- Justin Mathew, INRIA / Université Paris-Saclay (président du jury - 2017)
- Rémy Dautriche, Université Grenoble-Alpes (rapporteur - 2016)
- Pascal Goffin, INRIA / Université Paris-Saclay (président du jury - 2016)
- University of Melbourne, Australia (rapporteur - 2012)
- Shuo-Hsiu Hsu, Conservatoire National des Arts et Métiers, Paris (rapporteur - 2010)
- Arnaud Blouin, Université d'Angers (examineur - 2009)

### Selection Committees

- Junior Researcher (Chargé de Recherche & Starting Faculty Position), Computer Science, Inria Saclay -- Île-de-France, committee vice-president, 2020
- Assistant Professor, Computer Science, Université Paris-Sud, committee member, 2018

## Conference Organization

- 9th Journée Visu, Bruyères-le-Châtel, France, June 2020  
**Co-organizer**
- 10th ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS), Paris, France, June 2018  
**General co-chair**
- IEEE VL/HCC, **Steering Committee member** (2010-2014), **vice-chair** (2010-2011), **chair** (2011-2013)
- Graduate Consortium: Expanding end user control in socio-technical systems (in conjunction with VL/HCC '11, funded by NSF), Pittsburgh, PA, USA, September 2011  
**Panelist and Submission Coordinator**
- IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '10), Madrid, Spain, September 2010  
**Program co-chair**
- Graduate Consortium: Democratizing Computational Tools (in conjunction with VL/HCC '10, funded by NSF), Madrid, Spain, September 2010  
**Panelist**
- IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '08), Herrsching am Ammersee, Germany, September 2008  
**Publicity chair**
- IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '07), Coeur d'Alène, ID, USA, September 2007  
**Publicity chair**

## Funded Projects

- 2021-2029. **EquipEx+ Continuum - Collaborative research infrastructure of 30 interactive platforms.**  
Funded by the French National Research Agency (ANR): **816K€**/13M€.  
*Role: principal investigator for partner INRIA.*
- 2018-2022. **Cherenkov Telescope Array - Operations Monitoring and Control User Interfaces.**  
Funded by CTA / DESY: **318K€.**  
*Role: principal investigator.*
- 2018. **Exploratory visualization of linked data for the Bibliothèque nationale de France.**  
Funded by Ministère de la Culture / BnF: **60K€.**  
*Role: principal investigator.*
- 2017-2018. **Large Synoptic Survey Telescope - Operations Monitoring and Control User Interfaces.**  
Funded by LSST / AURA: **100K€.**  
*Role: principal investigator.*
- 2017. **Air Quality Monitoring in Korean Metropolises on Ultra-high-resolution Wall Displays.**  
Funded by KISTI: **70K€.**  
*Role: principal investigator.*
- 2014-2017. **MapMuxing - Multi-dimensional Map Multiplexing.** 3 academic partners.  
Funded by the French National Research Agency (ANR), Programme générique: **208K€**/499K€.  
*Role: principal investigator for partner INRIA.*
- 2014. **Prototipo de visualizador de archivos FITS en muros de pantallas.**  
Funded by Millenium Institute of Astrophysics (MAS), **8.000.000CLP** (10K€).  
*Role: principal investigator for partner INRIA Chile.*
- 2013-2014. **ANDES: INRIA Chile's Massive Data Visualization Wall**  
Funded by CORFO (Corporación de Fomento de la Producción, Chile) and INRIA Chile: **200K€.**  
*Role: coordinator/principal investigator.*
- 2010-2016. **ALMA Observatory Operations Monitoring and Control User Interfaces.**  
Funded by ALMA: **255K€.**  
*Role: coordinator/principal investigator.*
- 2008-2012. **WILD - Wall-sized Interaction with Large Datasets.** 4 academic partners.  
Funded by RTRA Digeo and Région Île-de-France, Domaine d'Intérêt Majeur "Logiciels et systèmes complexes": **429K€.**  
*Role: coordinator/principal investigator.*
- 2009-2012. **MLSN - Multi-Level Social Networks.** 4 academic and industrial partners.  
Funded by the French National Research Agency (ANR), Programme VERSO: **177K€**/738K€.  
*Role: principal investigator for partner INRIA/In Situ.*
- 2009-2013. **HolyRisk - Scientific Uncertainty and Food Risk Regulation.** 5 academic partners.  
Funded by the French National Research Agency (ANR), Programme BLANC: **61K€**/702K€.  
*Role: principal investigator for partner INRIA/In Situ.*
- 2006-2009. **WebContent - The Semantic Web Framework.** 19 academic and industrial partners.  
Funded by the French National Research Agency (ANR), RNTL Plateforme: **58K€**/2M€.  
*Role: principal investigator for partner INRIA/In Situ.*

## Teaching / Consulting

- Course Instructor (chargé d'enseignement): INF552 Data Visualization  
3ème année (X-3A) & M1/M2, 36 hours, ≈ 50-to-60 students, École Polytechnique, since 2018.
- Course Instructor: Data Visualization  
Master Informatique Décisionnelle, 24 hours, 32 students on average, Université Paris Dauphine, since 2014.
- The Fresnel language, Semantic Web data presentation solutions  
To four senior consultants and software engineers, 2 days/16 hours, PCO Innovation, 2008
- Information Visualization  
TD Master Pro, 12 hours, Université Paris-Sud XI, 2005
- The Python language, Zope and CPS  
To three software engineers, 2 days/16 hours, Cap Gemini Belgium, 2003

## Supervision of Research and Software Development Activities

### Group Manager

- Since January 2015: **team leader**, Equipe ILDA
  - INRIA Saclay team (joint with Université Paris-Saclay & CNRS)
  - The team officially started in January 2015 with 4 faculty member, 3 PhD students, 2 engineers from SED (part-time). Now five permanent members, and on average 1 postdoc, 4-to-6 PhD students and 1 engineer.
- July 2012 - July 2014: **team leader**, Project Massive Data

- INRIA Chile team
- Average of 1 faculty member, 1 PhD student (visiting), 3 engineers.
- Large proportion of engineers as the team, and INRIA Chile as a whole, are oriented towards transfer activities.
- Then Scientific Advisor (since 2015) to INRIA Chile's visualization lab.
- August 2010 - July 2012: **interim team leader** (*responsable par interim*) of EPI In Situ
  - INRIA Saclay team joint with LRI (Université Paris-Sud and CNRS)
  - Average of 8 faculty members, 3 postdocs, 7 PhD students, 3 engineers over the period.

## Post-docs

- Vanessa Peña-Araya  
*Geotemporal visualization*  
December 2018 - September 2021
- Vit Rusňák  
*Collaborative geovisualization on large, tactile displays*  
January 2017 - December 2017
- André Spritzer  
*Interactive Visualization of Medium-scale Networks for Data Storytelling on Wall Displays*  
November 2015 - October 2016
- Daniel Spelmezan  
*Prototyping and implementing sensing systems and interaction techniques for mobile devices*  
September 2011 - August 2013
- Rodrigo de Almeida  
*Accelerated 2D graphics visualization pipeline for high-resolution displays*  
February 2011 - January 2012

## Ph. D. students

- Vincent Cavez, co-advised with Caroline Appert - Bourse INRIA  
*Post-WIMP Interactive Data Manipulation*  
Since October 2021.
- Marie Destandau, co-advised with Caroline Appert, Jean-Daniel Fekete - Bourse INRIA  
*Interactive Visual Exploration of Webs of Data*  
Started October 2017, defended December 18th, 2020.
- Hugo Romat, co-advised with Caroline Appert - Bourse CIFRE/ANRT, with TKM  
*Visual exploration and interactive manipulation techniques for collections of heterogeneous data and documents*  
Started June 2016, defended on October 3rd, 2019.
- María-Jesús Lobo, co-advised with Caroline Appert - Bourse ANR, project MapMixing  
*Interactive Transitions for Map Applications*  
Started October 2014, defended on December 5th, 2017.
- Rafael Morales, co-advised with Caroline Appert and Gilles Bailly - Bourse Digiteo  
*Surface Gestures for Advanced Graphical Interfaces*  
Started November 2014, defended on October 9th, 2017.
- Benjamin Bach, co-advised with Jean-Daniel Fekete - Bourse INRIA CORDI  
*Navigation and Interactive Visualizations for Dynamic Network Exploration*  
Started January 2011, defended on May 9th, 2014.  
Awarded a **honourable mention** at the **IEEE VGTC VPG Doctoral Dissertation Competition** (November 2014).
- Cyprien Pindat, co-advised with Claude Puech - Bourse MENRT  
*A Content-Aware Design Approach to Multiscale Navigation*  
Started October 2010, defended on December 20th, 2013.
- Mathieu Nancel, co-advised with Michel Beaudouin-Lafon - Bourse Région Ile-de-France / Digiteo  
*Designing and Combining Interaction Techniques in Large Display Environments*  
Started October 2008, defended on December 5th, 2012.

## Engineers

- Dylan Lebout, Software engineer - INRIA Ingénieur Expert  
*Design & development of operations monitoring and control user interfaces for the Cherenkov Telescope Array (CTA)*  
Since November 2017
- Hande Gözükan, Software engineer - INRIA SED (Service d'Expérimentation et de Développement)  
*Design and development of a platform for the visualization of linked data on the Web.*  
February 2015 to October 2018
- All engineering activities of INRIA Chile team Massive Data (4 engineers).  
July 2012 to July 2014.
- Romain Primet, Software engineer - INRIA SED (Service d'Expérimentation et de Développement)  
*Adapting the ZVTM/ZUIST toolkit to work on computer clusters driving large wall-sized displays, and user interfaces for ALMA operations monitoring and control*  
March 2009 - January 2012
- Clément Pillias, Software engineer - Région Ile-de-France / Digiteo  
*Administration and development of the WILD visualization platform (wall-sized high-resolution display)*  
March 2009 to September 2011
- Julien Husson, Software engineer - INRIA Ingénieur Jeune Diplômé  
*Design and implementation of a ZUIST-based multi-scale interface for navigating large digital libraries such as HAL-INRIA*  
October 2009 to September 2011
- The Nhan Luong, Software engineer - ANR / RNTL  
*Development of interaction and information presentation components for the WebContent platform*  
October 2007 to September 2008

## M. Sc./Eng. students (internships)

- M.Sc. student (ENS Paris-Saclay)  
*A Web-Based Environment for Cluster-Driven High-Resolution Wall Displays*  
April to August 2021
- M.Sc. student (École Polytechnique X-3A)  
*Post-WIMP Data Wrangling*  
May to July 2021
- L2 student (IUT Sénart-Fontainebleau)  
*Extending Copy-and-Paste Interactions on Mobile Devices with Offscreen Multi-clipboards*  
April to June 2020
- M.Eng. student (Pontificia Universidad Católica de Chile)  
*Finger gesture recognition using data gloves and machine learning*  
January to March 2019
- M.Sc. student (Université Paris-Sud XI)  
*Visualization of geolocated and temporal data on the Web*  
May to September 2017
- M.Eng. student (Universidad de Chile) - Internship at INRIA Chile  
*Visualization of FITS images and Virtual Observatory data on ultra-high-resolution wall displays*  
April to December 2015
- M.Sc. student (Université Paris-Sud XI)  
*Collaborative Multi-scale Navigation on wall displays*  
April to August 2015
- M.Sc. student (EIT ICT Labs, Université Paris-Sud XI)  
*Navigating the Web of Data through the temporal dimension*  
April to July 2015
- Senior student (MIT, MIT-France internship)  
*Interactive Visualization of Training Sets for the Development of Gesture-based Interfaces*  
June to August 2015
- M.Sc. student (Universidad de la República, Uruguay) - Internship at INRIA for International Students  
*Adaptive Lenses: Content-aware Focus+Context Visualization*  
April to August 2010
- M.Sc. student (University of Technology Dresden, Germany) - Internship at INRIA for International Students  
*Visualization of OWL Semantic Web Ontologies with NodeTrix*  
November 2009 to March 2010



- M.Sc. student (St Petersburg State University, Russia) - Internship at INRIA for International Students *Visualization of OWL Semantic Web Ontology Graphs with Adjacency Matrices* October 2007 to March 2008
- M.Sc. student (St Petersburg State University, Russia) - Internship at INRIA for International Students *Development of a visual editor for OWL-PL ontologies* April to August 2007
- M. Eng. student (Master Pro, Université Paris-Sud XI) *Improving Human-Computer Interaction in ZGRViewer, a 2.5D Graph Visualization Tool* April to September 2005
- Two M. Eng. students (DESS, Université Joseph Fourier, Grenoble I) *Modeling XML Schema Structural Constraints and Datatypes with Circus' Type System* February to September 2002

### Student Project Supervision

- École Polytechnique, 3A, INF517: 2019 (1); INF592: 2020 (1)
- École Polytechnique, Bachelor, CSE303: 2019 (3)

## Collective Responsibilities

- **Vice-president** (2020) of INRIA Saclay - Île de France's hiring committee for CRCN (Chargé de Recherche Classe Normale/Junior Research Scientist) and ISFP (Inria Starting Faculty Positions).
- **Member** (Feb 2008 - Feb 2009) then **President** (Mar 2009 - Jul 2012 & Dec 2015 - Dec 2019) of INRIA Saclay - Île de France's Commission for Technological Development (CDT: Commission de Développement Technologique)
- **Member** (since Feb 2016) of INRIA Saclay - Île de France's Bureau du Comité des Équipes-Projets (BCEP)
- **Scientific coordinator** (2018) of INRIA's evaluation seminar for period 2015-2018, theme Interaction and visualization.
- **Elected member** (2015-2017) of Université Paris-Saclay's Conseil Académique.
- **Member** (2011-2014) of INRIA's grant selection committee (GTAI-COST, Groupe de Travail Actions Incitatives - Comité d'Orientation Scientifique et Technologique)
- **Chair** of ACM SIGCHI Local Chapter Paris May 2010 - May 2012
- IEEE VL/HCC, **Steering Committee member** (2010-2014), **vice-chair** (2010-2011), **chair** (2011-2013)
- **Member** of INRIA's working group on experimental platforms, representing INRIA Saclay 2008-2010
- **Member** of INRIA's working group on the 2nd generation of code forge 2010-2013
- **Member** of INRIA's commission nationale des ingénieurs spécialistes 2009-2010
- **Representative** of INRIA's personnel (représentant des utilisateurs), Digiteo Labs' architectural program 2007-2008
- **Jury member** for INRIA's TR competitive selection process (research support positions, concours externe pour le recrutement d'ingénieurs et de personnels techniques) 2006 (TR4)
- **Member** of INRIA Futurs' local commission evaluating proposals and applications for junior engineer positions (ingénieurs associés) 2005-2007
- **Member** of the IziGFD working group (enabling INRIA personnel to access part of the GFD application) 2005-2006
- **Elected member** of INRIA Futurs' CUR (Comité d'Unité de Recherche) December 2004 - December 2006

## Software Writing and Distribution

- **ZVTM (Zoomable Visual Transformation Machine)** - <http://zvtm.sourceforge.net>  
*A Java2D-based zoomable user interface toolkit aimed at addressing Human-Computer Interaction issues in visual language environments and other types of advanced structured graphics editors.*
  - Principal developer. Contributions from 16 other individuals (INRIA engineers, research scientists, post-docs, PhD students, M.Sc. students).
  - One of the most popular applications based on ZVTM is ZGRViewer, a graph viewer for AT&T GraphViz, hosted by the same project.
  - Open-source project (LGPL license) hosted by SourceForge, total of **about 123 000 downloads**, not including Maven dependency downloads. Cited by **126 research papers**, plus **104 additional citations** for ZGRViewer. Numbers collected on 2021-10-21.
  - Approx. 135 kLOC.
- **ALMA Operations Monitoring and Control Software** - <http://www.almaobservatory.org>  
*Development of advanced visualization components for the real-time control of the ALMA radio-observatory.*
  - Development of ALMA OMC plugins in collaboration with engineers from the SED of INRIA Saclay and from ESO.
  - Part of a very large code base. High-quality code used daily for the control of the telescope, some of it based on ZVTM.
  - Approx. 20 kLOC.
- **IsaViz** - <http://www.w3.org/2001/11/IsaViz/>  
*A visual authoring tool for RDF models represented as node-link diagrams, with support for GSS (Graph Stylesheets) and FSL (Fresnel Selector Language). IsaViz uses ZVTM to render RDF graphs in a multiscale interface.*
  - Open-source project (W3C license) hosted by W3C, average number of downloads not available, cited by **154 research papers**, approx. 612 results returned by a Google Scholar search. Numbers collected on 2021-10-21.
  - Approx. 43 kLOC.
- **JFresnel** - <http://jresnel.gforge.inria.fr/>  
*Fresnel is a presentation vocabulary for Semantic Web data designed to be application and representation paradigm independent. JFresnel is a Java library that implements the Fresnel specification for various RDF APIs, such as HP's Jena and Aduna's Sesame.*
  - Open-source project (LGPL license) hosted by InriaGForge. Underlying research on Fresnel cited by **277 research papers**. Numbers collected on 2021-10-21.
  - Project with contributions from HP Laboratories Palo Alto, the Simile project at MIT, and Masaryk University.
  - Approx. 20 kLOC.

## Popularization

- 2020-10-07: ANDRA (Agence Nationale pour la Gestion des Déchets Radioactifs) - Sanctuary : la mémoire de l'humanité sur la Lune
- 2020-01-14: Inspection Générale des Finances (Ministère de l'économie, Ministère du budget) - Visualisation de données, principes fondamentaux
- 2019-09-01: Ça m'intéresse (magazine) - Sanctuary, bons baisers de la Terre (pages 58-59)
- 2019-06-12: Ciel & Espace (magazine) - Sanctuary, le projet français qui vise à faire de la Lune un lieu de la mémoire humaine
- 2019-05-13: France 2 (TV): Télématin, Sanctuary (11'30-15'30)
- 2019-04-22: France 3 (TV): Soir 3, Humanité : la Lune comme sanctuaire
- 2019-03-29: Science & Avenir (magazine), Sanctuary : le projet fou d'envoyer un selfie ou sa dédicace sur la Lune
- 2019-03-18: Inria.fr (Web site), Sanctuary : une trace sur la Lune pour le cinquantenaire de la mission Apollo 11
- 2019-02-15: Métro parisien, La fresque du couloir de la station Montparnasse-Bienvenue
- 2018-08-14: Le Monde (newspaper), Un sanctuaire de l'humanité sur la Lune en 2019
- 2017-08-23: CNRS Le Journal - À la conquête des écrans géants
- 2017-08-11: Le Monde (newspaper), Plongée dans les écrans du futur
- 2016-05-28: SPIE Newsroom (Web site), Ultra-high-resolution walls for visualizing very large datasets
- 2015-10-30: Présentation de la plateforme WILDER au Président de l'Assemblée Nationale
- 2014-12-23: ALMA (Web site), Antenna dance at ALMA
- 2014: Bits de Ciencia (magazine), Visualización de Big Data en Alta Resolución a Disposición de la Comunidad Científica y la Industria Chilena
- 2014: Reuna, Red en Acción (magazine), Muro de visualización de Inria Chile permitirá el análisis de grandes volúmenes de datos
- 2013-03-13: Inria.fr (Web site), Des chercheurs d'Inria au cœur de l'aventure d'ALMA, le plus grand radiotélescope du monde, au Chili

- 2012-07-03: Inria.fr (Web site), Mieux que l'écran géant : le mur d'écrans interactif !
  - 2012-06-20: Inria.fr (Web site), Inria inaugure la fondation Inria Chile et le CIRIC
  - 2011-12-21: Inria.fr (Web site), Inria collabore avec ALMA, le plus grand projet de radio-télescope du Monde
  - 2011-11-09: Présentation de la plateforme WILDER au Ministre de l'Enseignement Supérieur et de la Recherche
  - 2011-08-19: Inria.fr (Web site), Retour sur la conférence CHI 2011
  - 2009-07-23: Inria.fr (Web site), La plate-forme WILD
- 

## Miscellaneous

- Spoken languages : French (first language), English (fluent), Spanish (beginner)