

# Sylvain Malacria

Mailing address: Inria Lille - Nord Europe, 40 avenue du Halley, 59650 Villeneuve d'Ascq

Phone: +33 (0)3 59 35 8785

E-mail: [sylvain.malacria@inria.fr](mailto:sylvain.malacria@inria.fr)

Web page: <http://www.malacria.com>

## Research interest

---

I am a research scientist (Chargé de Recherche 1ère classe) at Inria, in the Loki group. Prior to that, I was a post-doc at the University College London and at the University of Canterbury (New-Zealand). I did my Ph.D. with Eric Lecolinet at Télécom ParisTech, and passed my Master Graduate at UPMC in Computer Science with a specialty in Artificial Intelligence and HCI.

My interests are in the area of Human-Computer Interaction with additional focus on designing discoverable and learnable interactive systems. In particular, I study how to improve the transition from novice to expert mode with Graphical User Interfaces, especially in the context of command selection. I have also designed, implemented and evaluated several novel interaction techniques that improve expert users performance while navigating large documents on touch sensitive surfaces. Overall, my research is typically stimulated by user interface performance bottlenecks that I then seek to remediate through interface design. Beyond my immediate background in computer science, I draw on various set of skills, including interaction design, experimental psychology and statistical analysis.

## Education

---

- Oct 2023      **Habilitation à Diriger des Recherches**  
ED MADIS 631 — Université de Lille  
Title: Why interaction methods should be exposed and recognizable
- Jury members: Wendy Mackay (Inria), Caroline Appert (CNRS), Duncan Brumby (UCL), Mira Dontcheva (Adobe)  
Lionel Seinturier (Univ. of Lille), Emmanuel Dubois (Univ. of Toulouse), Stéphane Huot (Inria)
- May 2011      **Ph.D. in Computer Science** (With High Honors)  
EDITE de Paris  
Title: Interaction techniques for touch-screens and digital pens  
Supervisor: Eric Lecolinet

## Experiences

---

- nov 2014 –      **Research Scientist (CR CN)**  
Inria, Centre de l'Université de Lille, France
- nov 2013 – sep 2014      **Research Assistant**  
UCL/BBC London Media Technology Campus, UCL, London, United Kingdom  
with Dr John Dowell
- nov 2011 – oct 2013      **Post doctoral researcher**  
HCI and Multimedia Lab, University of Canterbury, Christchurch, New-Zealand  
with Professor Andy Cockburn (<http://www.cosc.canterbury.ac.nz/andrew.cockburn/>)
- oct 2007 – may 2011      **Ph.D. student**  
Telecom-ParisTech (Paris - France)

## Publications

---

### International publications























- ISMAR '24 Suliac Lavenant, Alix Goguey, Sylvain Malacria, Laurence Nigay and Thomas Pietrzak. IEEE International Symposium on Mixed and Augmented Reality (2024) 
- MobileHCI '24 Vincent Lambert, Alix Goguey, Sylvain Malacria and Laurence Nigay. Proc. ACM Hum.-Comput. Interact, MobileHCI (2024)  
- DIS '24 Raphaël Perraud, Aurélien Tabard and Sylvain Malacria. Proceedings of the ACM Conference on Designing Interactive Systems (2024)  
- HCI' 24 Eva Mackamul, Géry Casiez and Sylvain Malacria. Human-Computer Interaction (2024)  
- CHI '24 Damien Masson, Sylvain Malacria, Géry Casiez and Daniel Vogel. Proceedings of the ACM Conference on Human Factors in Computing Systems (2024)    
- TOCHI' 24 Alice Loizeau, Sylvain Malacria and Mathieu Nancel. ACM Transactions on Computer-Human Interaction (2024)  
- GI '24 Yuan Chen, Géry Casiez, Sylvain Malacria and Dan Vogel. Proceedings of the Graphics Interface 2024 Conference (2024)   
- UIST '23 Damien Masson, Sylvain Malacria, Géry Casiez and Daniel Vogel. Proceedings of the ACM Symposium on User Interface Software and Technology (2023)    
- MobileHCI '23 Eva Mackamul, Géry Casiez and Sylvain Malacria. Proc. ACM Hum.-Comput. Interact, MobileHCI (2023)    
- MobileHCI '23 Vincent Lambert, Adrien Chaffangeon Caillet, Alix Goguey, Sylvain Malacria and Laurence Nigay. Proc. ACM Hum.-Comput. Interact, MobileHCI (2023)   
- CHI '23 Damien Masson, Sylvain Malacria, Géry Casiez and Daniel Vogel. Proceedings of the ACM Conference on Human Factors in Computing Systems (2023)      
- CHI '23 Damien Masson, Sylvain Malacria, Daniel Vogel, Edward Lank and Géry Casiez. Proceedings of the ACM Conference on Human Factors in Computing Systems (2023)     
- CHI '23 Bruno Fruchard, Sylvain Malacria, Géry Casiez and Stéphane Huot. Proceedings of the ACM Conference on Human Factors in Computing Systems (2023)    
- GI '23 Yuan Chen, Géry Casiez, Sylvain Malacria and Ed Lank. Proceedings of the Graphics Interface 2023 Conference (2023)
- TOCHI' 22 Katherine Fennedy, Angad Srivastava, Sylvain Malacria and Simon T Perrault. ACM Transactions on Computer-Human Interaction (2022)   
- UIST '21 Raiza Hanada, Damien Masson, Géry Casiez, Mathieu Nancel and Sylvain Malacria. Proceedings of the ACM Symposium on User Interface Software and Technology (2021)     
- CHI '21 Axel Antoine, Sylvain Malacria, Nicolai Marquardt and Géry Casiez. Proceedings of the ACM Conference on Human Factors in Computing Systems (2021)    
- UIST '20 Philippe Schmid, Sylvain Malacria, Andy Cockburn and Mathieu Nancel. Proceedings of the ACM Symposium on User Interface Software and Technology (2020)    
- MobileHCI '20 Katherine Fennedy, Sylvain Malacria, Hyowon Lee and Simon Perrault. Proceedings of the ACM Conference on Human-Computer Interaction with Mobile Devices and Services (2020)   
- DIS '20 Jessalyn Alvina, Andrea Bunt, Parmit Chilana, Sylvain Malacria and Joanna McGrenere. Proceedings of the ACM Conference on Designing Interactive Systems (2020)   
- CHI '20 Jay Henderson, Sylvain Malacria, Mathieu Nancel and Edward Lank. Proceedings of the ACM Conference on Human Factors in Computing Systems (2020)    
- CHI '20 Damien Masson, Sylvain Malacria, Edward Lank and Géry Casiez. Proceedings of the ACM Conference on Human Factors in Computing Systems (2020)      

- ISS '19 Nicole Ke Chen Pong and Sylvain Malacria. Proceedings of the ACM Conference on Interactive Surfaces and Spaces (ISS 2019)   
- Interact '19 Axel Antoine, Sylvain Malacria, Nicolai Marquardt and Géry Casiez. Proceedings of the IFIP Conference on Human-Computer Interaction (2019)    
- CHI '18 Alix Goguey, Sylvain Malacria and Carl Gutwin. Proceedings of the ACM Conference on Human Factors in Computing Systems (2018)   
- CHI '18 Jeff Avery, Sylvain Malacria, Mathieu Nancel, Géry Casiez and Edward Lank. Proceedings of the ACM Conference on Human Factors in Computing Systems (2018)    
- CHI '18 Axel Antoine, Sylvain Malacria and Géry Casiez. Proceedings of the ACM Conference on Human Factors in Computing Systems (2018)    
- CHI '18 Shaishav Siddhpuria, Sylvain Malacria, Mathieu Nancel and Edward Lank. Proceedings of the ACM Conference on Human Factors in Computing Systems (2018)   
- UIST '17 Damien Masson, Alix Goguey, Sylvain Malacria and Géry Casiez. Proceedings of the ACM Symposium on User Interface Software and Technology (2017)    
- CHI '17 Emmanouil Giannidakis, Gilles Bailly, Sylvain Malacria and Fanny Chevalier. Proceedings of the ACM Conference on Human Factors in Computing Systems (2017)   
- CHI '17 Axel Antoine, Sylvain Malacria and Géry Casiez. Proceedings of the ACM Conference on Human Factors in Computing Systems (2017)   
- IJHCS '17 Jonathan Aceituno, Sylvain Malacria, Philip Quinn, Nicolas Roussel, Andy Cockburn and Géry Casiez. International Journal of Human-Computer Studies  
- CHI '16 Gilles Bailly, Sidharth Sahdev, Sylvain Malacria and Thomas Pietrzak. Proceedings of the ACM Conference on Human Factors in Computing Systems (2016)   
- MobileHCI '15 Marios Constantinides, John Dowell, David Johnson and Sylvain Malacria. Proceedings of the ACM Conference on Human-Computer Interaction with Mobile Devices and Services (2015)   
- CHI '15 Sylvain Malacria, Jonathan Aceituno, Philip Quinn, Géry Casiez, Andy Cockburn and Nicolas Roussel. Proceedings of the ACM Conference on Human Factors in Computing Systems (2015)   
- PUC '15 John Dowell, Sylvain Malacria, Hana Kim and Edward Anstead. Personal and Ubiquitous Computing  
- CHI '14 Carl Gutwin, Andy Cockburn, Joey Scarr, Sylvain Malacria and Scott C. Olson. Proceedings of the ACM Conference on Human Factors in Computing Systems (2014)   
- CSUR '15 Andy Cockburn, Carl Gutwin, Joey Scarr and Sylvain Malacria. ACM Computing Surveys 2015  
- UIST '13 Philip Quinn, Sylvain Malacria and Andy Cockburn. Proceedings of the ACM Symposium on User Interface Software and Technology (2013)    
- UIST '13 Sylvain Malacria, Joey Scarr, Andy Cockburn, Carl Gutwin and Tovi Grossman. Proceedings of the ACM Symposium on User Interface Software and Technology (2013)   
- CHI '13 Joey Scarr, Andy Cockburn, Carl Gutwin and Sylvain Malacria. Proceedings of the ACM Conference on Human Factors in Computing Systems (2013)   
- CHI '13 Quentin Roy, Sylvain Malacria, Yves Guiard, Eric Lecolinet and James Eagan. Proceedings of the ACM Conference on Human Factors in Computing Systems (2013)   
- CHI '13 Sylvain Malacria, Gilles Bailly, Joel Harrison, Andy Cockburn and Carl Gutwin. Proceedings of the ACM Conference on Human Factors in Computing Systems (2013)   
- AVI '12 Thomas Pietrzak, Sylvain Malacria and Eric Lecolinet. Proceedings of the Conference on Advanced Visual Interfaces (2012)  
- Interact '11 Sylvain Malacria, Thomas Pietrzak, Aurélien Tabard and Eric Lecolinet. Proceedings of the IFIP Conference on Human-Computer Interaction (2011)  
- CHI '10 Sylvain Malacria, Eric Lecolinet and Yves Guiard. Proceedings of the ACM Conference on Human Factors in Computing Systems (2010)   




## Book chapters

Book '22 Gilles Bailly and Sylvain Malacria. Handbook of Human Computer Interaction  




















## Juried publications








- CHI EA '23 Bruno Fruchard, Céline Avezou, Sylvain Malacria, Géry Casiez and Stéphane Huot. Extended Abstracts of the 2023 HCI Conference on Human Factors in Computing Systems (Case Study)    
- CHI EA '20 Damien Masson, Sylvain Malacria, Edward Lank and Géry Casiez. Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (Interactivity)     
- CHI EA '18 Axel Antoine, Sylvain Malacria and Géry Casiez. Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (Interactivity)   
- CHI EA '16 Christian Frisson, Sylvain Malacria, Gilles Bailly and Thierry Dutoit. Extended Abstracts of the 2016 CHI Conference on Human Factors in Computing Systems (Late Breaking Work)   
- MobileHCI EA '15 Marios Constantinides, John Dowell, David Johnson and Sylvain Malacria. Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct 
- CHI EA '12 Simon Perrault, Sylvain Malacria, Yves Guiard and Eric Lecolinet. Extended Abstracts of the 2012 CHI Conference on Human Factors in Computing Systems (Video)   
- CHI EA '11 Mathias Baglioni, Sylvain Malacria, Eric Lecolinet and Yves Guiard. Extended Abstracts of the 2011 CHI Conference on Human Factors in Computing Systems (Late Breaking Work)   

## Workshop publications


- ETIS '17 Thomas Pietrzak, Gilles Bailly and Sylvain Malacria. Proceedings of the European Tangible Interaction Studio (ETIS 2017) 
- WSICC '14 John Dowell, Sylvain Malacria and Sean O'Halpin. 2nd International Workshop on Interactive Content Consumption at TVX'14 
- Papercomp '10 Thomas Pietrzak, Sylvain Malacria and Eric Lecolinet. Adjunct Proceedings of Ubicomp 2010, Papercomp Workshop 

## Domestic publications

- IHM '24 Constance Thierry, Géry Casiez, Jean-Christophe Dubois, Yolande Le Gall, Sylvain Malacria, Thomas Pietrzak, Arnaud Martin and Pierrick Uro. Proceedings of the Conference on Interaction Humain-Machine (2024)  
- IHM EA '23 Bruno Fruchard, Sylvain Malacria, Géry Casiez and Stéphane Huot. Adjunct Proceedings of the Conference on Interaction Humain-Machine (2023) 
- IHM EA '23 Géry Casiez, Sylvain Malacria and Eva Mackamul. Adjunct Proceedings of the Conference on Interaction Humain-Machine (2023)  
- IHM '22 Alix Goguey, Sylvain Malacria, Daniel Vogel and Géry Casiez. Proceedings of the Conference on Interaction Humain-Machine (2022)  
- IHM '19 Alix Goguey, Sylvain Malacria, Andy Cockburn and Carl Gutwin. Proceedings of the Conference on Interaction Humain-Machine (2019)   
- IHM '16 Sylvain Malacria, Alix Goguey, Gilles Bailly and Géry Casiez. Proceedings of the Conference on Interaction Humain-Machine (2016)   
- IHM EA '16 Axel Antoine, Sylvain Malacria and Géry Casiez. Adjunct Proceedings of the Conference on Interaction Humain-Machine (2016)  
- IHM '15 Mathieu Berthelley, Elodie Cayez, Marwan Ajem, Gilles Bailly, Sylvain Malacria and Eric Lecolinet. Proceedings of the Conference on Interaction Humain-Machine (2015)  
- IHM '14 Thomas Pietrzak, Sylvain Malacria and Gilles Bailly. Proceedings of the Conference on Interaction Humain-Machine (2014)  

- IHM '13 Gilles Bailly and Sylvain Malacria. Proceedings of the Conference on Interaction Humain-Machine (2013)   
- IHM '09 Sylvain Malacria and Eric Lecolinet. Proceedings of the Conference on Interaction Humain-Machine (2009)  
- IHM '08 Sylvain Malacria and Eric Lecolinet. Proceedings of the Conference on Interaction Humain-Machine (2008)  

### Thesis

HDR Sylvain Malacria. University of Lille 

## Research activities

---

### Rewieving

I frequently serve as a reviewer for the main HCI conferences, especially:

- ACM Symposium on User interface software and technology (UIST).
- ACM Conference on Human Factors in Computing Systems (CHI).
- ACM Conference on Interactive Surfaces and Spaces (ISS).
- ACM Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI).
- IFIP TC13 Conference on Human-Computer Interaction (INTERACT).
- The interdisciplinary journal of Human-Computer Interaction (Interacting With Computers).
- ACM Conférence francophone sur l'Interaction Homme-Machine (IHM).

### Volunteering

- Video presentation co-chair for the CHI 2025 conference alongside Bektur Ryskeldiev and Xingyu Bruce Liu
- Program Committee Member for the CHI 2021, 2022, 2023 and 2025 conference (Engineering Interactive Systems and Technologies subcommittee).
- Member of the ACM ISS Editorial Board
- Program Committee Member for the ISS 2019 conference.
- Interactivity co-chair for CHI 2021 alongside Pedro Lopes and Yuta Sugiura.
- Demonstration co-chair for ISS 2020 alongside Christian Holz.
- Interactivity co-chair for CHI 2020 alongside Ian Oakley and Walter Lasecki.
- Program Committee Member for the ISS 2019 conference.
- Program Committee Member for CHI 2017 and CHI 2018 (Interaction Techniques and Devices, and Modalities subcommittee).
- Program Committee Member for the Mobile HCI 2016 conference.
- Program Committee Member for the French-speaking HCI conference (IHM 2014, 2015).
- Program Committee Member for Workshops for CHI 2014, CHI 2015 conferences.
- Program Committee Member for the Fifteenth Australasian User Interface Conference (AUIC 2014).
- UCLIC PhD showcase session chair (2014).
- Weekly meetings management in the HCI Lab of the University of Canterbury(2012-2013).
- ACM SigCHI Paris “Interfaces de demain” showcase, July 7 2011, Paris.

## Teaching

---

### Ongoing

Title	Location	Years	Total Volume
Gestural Interaction	IMT Lille Douai	2017-	3h lectures 4h guided classes
Advanced HCI	University of Lille	2017-	6h lectures 6h guided classes
HCI	University of Lille	2014-	24h lectures 24 to 48h guided classes
Introduction to HCI	University of Lille	2020-	4.5h lectures

### Past

Title	Location	Years	Total Volume
Participatory Design	Institut Villebon	2015-2018	17h lectures 34h guided classes
Interfaces & Interactivity	University College London	2013-2014	8h lectures 10h guided classes
Introduction to HCI	University of Canterbury	2011-2012	3h lectures
Programming paradigms	Telecom-ParisTech	2007-2010	50h guided classes
Java programming	Telecom-ParisTech	2007-2010	50h practical classes 14h guided classes 2h30 lectures
Introduction to HCI	Univ. Paris 6	2008-2009	3h lectures
Java Group projects	Telecom-ParisTech	2007-2009	50h guided classes
Micro-project	Telecom-ParisTech	2007-2008	12h guided classes

## Supervision

---

### PhD Supervisions

- 2024- Antoine Nollet — Semi-Automatic Information Management for Collaborative Spaces (co-supervisors Bruno Fruchard, Carla Griggio) — Defense expected in 2027
- 2023- Suliac Lavenant — Leveraging vibrotactile information for microgestural interaction (co-supervisors Laurence Nigay, Alix Goguey, Thomas Pietrzak) — Defense expected in 2026
- 2022- Vincent Lambert — Communicating microgestural interaction (co-supervisors Laurence Nigay, Alix Goguey) — Defense expected in 2025
- 2022- Raphaël Perraud — Towards better software learning — Defense expected in 2025
- 2020-2024 Constant Yuan Chen (co-supervisors Géry Casiez and Dan Vogel) — Interaction in Spatially Augmented Reality — Defended in August 2024
- 2020-2023 Eva Mackamul (co-supervisor Géry Casiez) — Investigating the Influence of Visual Signifiers to Foster the Discovery of Touch-Based Interactions — Defended in December 2023
- 2019-2023 Damien Masson (co-supervisors Géry Casiez, Edward Lank and Dan Vogel) — Transforming the reading experience of scientific documents with polymorphism — Defended in August 2023
- 2017-2020 Axel Antoine (Director Géry Casiez) — Études des stratégies et conception d’outils pour la production de supports illustratifs d’interaction — Defender January 2021
- 2016-2020 Nicole Pong (Co-directors Stéphane Huot and Nicolas Roussel) — Interacting with Signifier-less Designs: the Case of Swhidgets — Defended October 2020

## Other Supervisions

- 2022-2023 Supervising Bruno Fruchard Post-Doc (co-supervisors Géry Casiez and Stéphane Huot)
- 2018-2020 Supervising Raiza Sarkis Hanada Post-Doc (co-supervisors Géry Casiez and Mathieu Nancel)
- 2019 Co-supervisor with Thomas Pietrzak and Géry Casiez of Pierrick Uro undergraduate summer internship (University of Lille)
- 2019 Co-supervisor with Mathieu Nancel of Philippe Schmid Master 2 internship (University of Lille)
- 2016-2017 Co-supervisor with Géry Casiez of Axel Antoine Master 1 and 2 summer internships (University of Lille)
- 2017-2018 Co-supervisor with Géry Casiez of Damien Masson Master 1 and Master 2 projects (University of Lille)
- 2016 Co-supervisor with Géry Casiez and Alix Goguy of Damien Masson undergraduate summer internship (University of Lille)
- 2016 Co-supervisor with Géry Casiez of Axel Antoine Master 1 projects (University of Lille)
- 2014 Supervisor of Hana Kim master student project. (University College London)
- 2012 Co-supervisor with Professor Cockburn of Joel Harrison honors project. (University of Canterbury)

## Fundings

---

### As Principal Investigator

- 2024-2025 Coordinator of the SciCOMM project, JSPS (Japanese Society for the Promotion of Science)  
Science Communication Support Using Generative AI with Large Language Models  
**Funding: 4 000 000 ¥**
- 2020-2025 Coordinator of the Discovery project, ANR (Agence Nationale de la Recherche)  
Promoting and improving discoverability in interactive systems  
**Funding: 240 000€**  
Website: <http://ns.inria.fr/discovery/>
- 2019-2021 Coordinator of the Esquisse project, Inria  
Facilitating figure production via 3D staging  
**Funding: 120 000€**
- 2017-2019 Coordinator of the IllInt project, Inria LNE  
Illustration of Interaction  
**Funding: 12 000€**

### As Collaborator

- 2024-2028 Collaborator of the Knowdgets project, ANR (Agence Nationale de la Recherche)  
Widgets Supporting Knowledge of Interaction  
**Funding: 352 417€**
- 2024-2027 Collaborator of the Input project, Inria  
Redefining the input pipeline  
**Funding: 27 000€**
- 2022-2026 Collaborator of the MIC project, ANR (Agence Nationale de la Recherche)  
Microgesture Interaction in Context  
**Funding: 620 000€**  
Website: <https://mic.imag.fr>
- 2020-2023 Collaborator of the PerfAnalytics project, ANR (Agence Nationale de la Recherche)  
In-situ Analysis of Performance  
Website: <https://perfanalytics.fr/>
- 2019-2021 Collaborator of the Réapp project, University of Lille  
Reappearing Interfaces in Ubiquitous Environments  
**Funding: 27 000€**