

Bruno Fruchard

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Education

Université Paris-Saclay / Télécom ParisTech PhD, Computer Science (focus on Human-Computer Interaction)	Sep 2015 — Dec 2018 France
Université Paris-Saclay Master's of Science, Computer Science (focus on Human-Computer Interaction)	Sep 2013 — July 2015 France
Université Paris-Saclay Bachelor's of Science, Computer Science	Sep 2010 — July 2013 France

Work Experience

Research scientist (Inria Starting Faculty Position) Inria <ul style="list-style-type: none">• working in the LOKI team• full-time researcher with teaching obligations	Oct 2022 — Present Lille, FR
Postdoctoral researcher Inria <ul style="list-style-type: none">• working with Stéphane Huot, Géry Casiez, Sylvain Malacria on the PerfAnalytics project• work on video annotations to produce analytical tools for sports federations that led to fundamental HCI questions [5], and a case study [6]	Aug 2021 — Oct 2022 Lille, FR
Postdoctoral researcher Saarland University <ul style="list-style-type: none">• working with Jürgen Steimle in the HCI Lab• worked on a variety of projects including psychophysical experiments [10, 16], developing design tools [9, 11, 16], designing ubiquitous interaction techniques [12], reflecting on critical designs [13] and designing DIY methods [17, 18]• supervision of M.Sc. theses and teaching assistant (see Teaching)	Feb 2019 — Apr 2021 Saarbrücken, DE
Ph.D. candidate Saarland University <ul style="list-style-type: none">• supervised by Eric Lecolinet and Olivier Chapuis and titled “Interaction techniques using memory to facilitate command activation”• designed and evaluated several interaction techniques [15, 22], and ran memorization experiments to evaluate benefits of interactions [19–21]• teaching assistant (see Teaching)	Oct 2015 — Sep 2018 Université Paris-Saclay / Télécom ParisTech, FR
Master's thesis - research assistant Saarland University <ul style="list-style-type: none">• supervised by Emmanuel Pietriga and Olivier Chapuis• development and evaluation of pan & zoom interaction techniques on wall-displays	Apr 2015 — Sep 2015 Université Paris-Saclay, FR
Research assistant Saarland University <ul style="list-style-type: none">• supervised by Emmanuel Pietriga and Olivier Chapuis• development and evaluation of pan & zoom interaction techniques on wall-displays	Apr 2013 — Jul 2013 Université Paris-Saclay, FR

Publications

- [1] Fruchard, B., Wittchen, D., Sabnis, N., Strohmeier, P. and Degraen, D. 2026. How are Vibrotactile Experiences Visually Represented? A Taxonomy of Illustration Characteristics. Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26) [10.1145/3772318.3790598](https://doi.org/10.1145/3772318.3790598) 🏆 best paper
- [2] Wittchen, D., Ramian, A., Sabnis, N., Böhme, R., Chlebowski, C., Freitag, G., Fruchard, B. and Degraen, D. 2025. CollabJam: Studying Collaborative Haptic Experience Design for On-Body Vibrotactile Patterns. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2025) [10.1145/3706598.3713469](https://doi.org/10.1145/3706598.3713469) 🏆 honorable mention (5% of 5014 submissions)

- [3] Fruchard, B., Maszewski, T. and Avezou, C. 2024. Etude de conception d'un outil d'analyse de données d'escalade de difficulté. IHM'24 - 35e Conférence Internationale Francophone sur l'Interaction Humain-Machine [10.1145/3649792.3649798](https://doi.org/10.1145/3649792.3649798) 🏆 honorable mention
- [4] Gori, J., Fruchard, B. and Bailly, G. 2024. Model-based Evaluation of Recall-based Interaction Techniques. Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems [10.1145/3613904.3642637](https://doi.org/10.1145/3613904.3642637)
- [5] Fruchard, B., Malacria, S., Casiez, G. and Huot, S. 2023. User Preference and Performance using Tagging and Browsing for Image Labeling. 2023 ACM CHI Conference on Human Factors in Computing Systems (CHI '23) [10.1145/3544548.3580926](https://doi.org/10.1145/3544548.3580926)
- [6] Fruchard, B., Avezou, C., Malacria, S., Casiez, G. and Huot, S. 2023. A Case Study on the Design and Use of an Annotation and Analytical Tool Tailored To Lead Climbing. 2023 CHI Conference on Human Factors in Computing Systems (CHI23) [10.1145/3544549.3573876](https://doi.org/10.1145/3544549.3573876)
- [7] Dobinson, R., Teyssier, M., Steimle, J. and Fruchard, B. 2022. MicroPress: Detecting Pressure and Hover Distance in Thumb-to-Finger Interactions. Proceedings of the 2022 ACM Symposium on Spatial User Interaction (SUI 2022) [10.1145/3565970.3567698](https://doi.org/10.1145/3565970.3567698) 🏆 best paper
- [8] Wittchen, D., Spiel, K., Fruchard, B., Degraen, D., Schneider, O., Freitag, G. and Strohmeier, P. 2022. TactJam: An End-to-End Prototyping Suite for Collaborative Design of On-Body Vibrotactile Feedback. Proceedings of the 16th International Conference on Tangible, Embedded, and Embodied Interaction (TEI 2022) [10.1145/3490149.3501307](https://doi.org/10.1145/3490149.3501307)
- [9] Fruchard, B., Degraen, D., Smolders, F., Potetsianakis, E., Güngör, S., Krüger, A. and Steimle, J. 2021. Weirding Haptics: In-Situ Prototyping of Vibrotactile Feedback in Virtual Reality through Vocalization. UIST '21: The 34th Annual ACM Symposium on User Interface Software and Technology [10.1145/3472749.3474797](https://doi.org/10.1145/3472749.3474797)
- [10] Fruchard, B., Strohmeier, P., Bennewitz, R. and Steimle, J. 2021. Squish This: Force Input on Soft Surfaces for Visual Targeting Tasks. 2021 ACM CHI Virtual Conference on Human Factors in Computing Systems (CHI '21) [10.1145/3411764.3445623](https://doi.org/10.1145/3411764.3445623)
- [11] Pourjafarian, N., Koelle, M., Fruchard, B., Mavali, S., Klamka, K., Groeger, D., Strohmeier, P. and Steimle, J. 2021. BodyStylus: Freehand On-Body Design and Fabrication of Epidermal Interfaces. CHI '21: CHI Conference on Human Factors in Computing Systems [10.1145/3411764.3445475](https://doi.org/10.1145/3411764.3445475)
- [12] Sharma, A., Hedderich, M.A., Bhardwaj, D., Fruchard, B., McIntosh, J., Nittala, A.S., Klakow, D., Ashbrook, D. and Steimle, J. 2021. SoloFinger: Robust Microgestures while Grasping Everyday Objects. CHI '21: CHI Conference on Human Factors in Computing Systems [10.1145/3411764.3445197](https://doi.org/10.1145/3411764.3445197)
- [13] Teyssier, M., Koelle, M., Strohmeier, P., Fruchard, B. and Steimle, J. 2021. Eyecam: Revealing Relations between Humans and Sensing Devices through an Anthropomorphic Webcam. CHI '21: CHI Conference on Human Factors in Computing Systems [10.1145/3411764.3445491](https://doi.org/10.1145/3411764.3445491)
- [14] Safin, S., Maitrallin, M., Fruchard, B. and Lecolinet, E. 2021. Processus d'appropriation et de mémorisation de raccourcis gestuels sur trackpad : Etude longitudinale des stratégies et usages des utilisateurs et impact d'une aide visuo-sémantique. 32eme conférence francophone sur l'interaction homme-machine
- [15] Fruchard, B., Lecolinet, E. and Chapuis, O. 2020. Side-Crossing Menus: Enabling Large Sets of Gestures for Small Surfaces. Proceedings of the ACM on Human-Computer Interaction [10.1145/3427317](https://doi.org/10.1145/3427317)
- [16] Strohmeier, P., Güngör, S., Herres, L., Gudea, D., Fruchard, B. and Steimle, J. 2020. bARefoot: Generating Virtual Materials using Motion Coupled Vibration in Shoes. UIST '20: The 33rd Annual ACM Symposium on User Interface Software and Technology [10.1145/3379337.3415828](https://doi.org/10.1145/3379337.3415828)
- [17] Honnet, C., Perner-Wilson, H., Teyssier, M., Fruchard, B., Steimle, J., Baptista, A.C. and Strohmeier, P. 2020. PolySense: Augmenting Textiles with Electrical Functionality using In-Situ Polymerization. 2020 CHI Conference on Human Factors in Computing Systems (CHI '20) [10.1145/3313831.3376841](https://doi.org/10.1145/3313831.3376841)
- [18] Strohmeier, P., Pourjafarian, N., Koelle, M., Honnet, C., Fruchard, B. and Steimle, J. 2020. Sketching On-Body Interactions using Piezo-Resistive Kinesiology Tape. 2020 Augmented Humans International Conference (AHs '20) [10.1145/3384657.3384774](https://doi.org/10.1145/3384657.3384774)
- [19] Fruchard, B., Lecolinet, E. and Chapuis, O. 2018. How Memorizing Positions or Directions Affects Gesture Learning?. Proceedings of the 2018 International Conference on Interactive Surfaces and Spaces [10.1145/3279778.3279787](https://doi.org/10.1145/3279778.3279787)

- [20] Fruchard, B., Lecolinet, E. and Chapuis, O. 2018. Memorisation de Commandes : Positions Spatiales versus Gestes Directionnels. 30eme conférence francophone sur l'interaction homme-machine
- [21] Fruchard, B., Lecolinet, E. and Chapuis, O. 2018. Impact of Semantic Aids on Command Memorization for On-Body Interaction and Directional Gestures. AVI 2018 - International Conference on Advanced Visual Interfaces [10.1145/3206505.3206524](https://doi.org/10.1145/3206505.3206524)
- [22] Fruchard, B., Lecolinet, E. and Chapuis, O. 2017. MarkPad: Augmenting Touchpads for Command Selection. Proceedings of the 35th international conference on Human factors in computing systems [10.1145/3025453.3025486](https://doi.org/10.1145/3025453.3025486)

Funded Projects

Principal Investigator

- 2025-2030 - [APPROPRIATE: Promoting the Personalization and Automation of Interactive Systems](#) (ANR)

Collaborator

- 2025-2030 - RPC-JaM: Robot Parallèle Continu à Jambes Modulaires (ANR)
- 2020-2025 - [PerfAnalytics](#) (ANR)

Scientific Manifestations

Invited Talks

- [PEPR O2R](#), projet AS1 - “Quels facteurs influencent le sentiment de sécurité lors d’interactions avec des robots souples ?” - March 3rd 2026

Workshops

- [CollabJam](#), World haptics 2023 - Organizer
- [Sustainable Haptic Design](#), CHI’22 - Organizer
- [TactJam: a Collaborative Playground for Composing Spatial Tactons](#), TEI’21 - Organizer
- [Motor Memory in HCI](#), CHI’20 - Organizer
- [Workshop on Immersive Analytics](#), CHI’19 - Attendee

Posters

- Design of a software suite to support indexing, annotating, and analyzing climbing videos, [ECSS’23: 28th Annual Congress of the European College of Sport Science](#) - [pdf](#)
- Interaction Technique Exploiting Memorization to Facilitate Access to Commands, UEIS’17: New trends in User Expertise and Interactive Systems (2017) - [png](#)
- Techniques d’Interaction Exploitant la Mémoire pour Faciliter l’Accès aux Commandes, IHM’17: Doctoral Consortium of the 29th international conference of the Association Francophone d’Interaction Homme-Machine

Demos

- Démonstration d’un outil d’analyse d’annotations de vidéos de performance d’escalade de difficulté, IHM’24 - 35e Conférence Internationale Francophone sur l’Interaction Humain-Machine - [hal](#)
- Design and Fabrication of Body-Based Interfaces, CHI’23: Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems - 🏆 **best demo** - [acm](#)
- Démonstration d’un outil d’annotation et d’analyse de vidéos d’escalade de difficulté, IHM’23: Extended Proceedings of the 34ème conférence Francophone sur l’Interaction Humain-Machine
- Demo of PolySense: How to Make Electrically Functional Textiles, CHI’20: Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems
- Démonstration de MarkPad : Augmentation du pavé tactile pour la sélection de commandes, IHM’17: Adjunction Proceedings of the 29th international conference of the Association Francophone d’Interaction Homme-Machine
- Démonstration de MarkPad : Augmentation du pavé tactile pour la sélection de commandes, IHMIA’17: Journée Interaction Homme-Machine et Intelligence Artificielle

Scientific mediation

I am a scientific communication officer of the Inria centre of the University of Lille since November 2024.

Organization

- “Les Innovantes” - December 11th 2025
 - promotion of women’s contributions in computer science to 80 highschoolers through presentations by [Yosra Rekik](#) and [Iliana Fayolle](#)

- RJMI “Rencontre Jeunes Mathématicienne et Informatiennes” with Simon Lemaire and Anaïs Kolumban - October 21st-22nd 2025
 - expose gender biases in computer science and mathematics research to 8 highschool girls, and run workshops over two days; keynotes by [Camille Marchet](#) and [Ana Matos](#).
- [7e journée Interaction Humain Machine et Intelligence Artificielle \(IHMIA\)](#) with [Fabrice Jaoüen](#) - 10 March 2025
- “Les Innovantes” with Alice Loizeau and Magda Guennadi - December 6th 2024
 - promotion of women’s contributions in computer science to 40 highschoolers through presentations by Anne-Marie Jolly, [Solène Lambert](#) and [Camille Dupré](#)
- RJMI “Rencontre Jeunes Mathématicienne et Informatiennes” with Simon Lemaire and Magda Guennadi - October 21st-22nd 2024
 - expose gender biases in computer science and mathematics research to 30 highschool girls, and run workshops over two days; keynotes by [Clémentine Maurice](#) and [Mylène Maida](#).
- “Les Innovantes” with Alice Loizeau and Manon Campos - December 5th 2023
 - promotion of women’s contributions in computer science to 120 highschoolers through presentations by [Laurence Nigay](#), [Elodie Bouzbiz](#), [Sara Bouzit](#), [Lisa Fericelli](#)

Participation

- panel on “Intelligence Numérique” for the “Fête de la Science” at the [Forum des Sciences of Villeneuve d’Ascq](#) - October 6th 2025
- “Fête de la Science” at the Inria center of the University of Lille - October 11th 2023
 - presentations of research projects on sport analytics to mid-school and high-school students
- VivaTech 2023, June 15-16th 2023
 - demonstration of the data processing tools developed with the French Climbing Federation [5, 6]
- “La Fête de la Science” with [Timo Maszewski](#) - October 6th-7th 2023
 - demonstration of the data processing tools developed with the French Climbing Federation [5, 6], and interview with “l’Esprit Sorcier” to present the broad scope of the PerfAnalytics project ([video sequence available here](#)).
- Participation in an [Xperium](#) round table with former Olympic medalist [Daouda Sow](#) – October 12th 2023
 - presentation of projects with the FFBoxe and reflection with Daouda Sow’s own practice ([video available here](#)).

Supervision

PhD theses

- “Investigating Benefits and Limitations of Asymmetric Collaboration for Designing Sensory Experiences in Mixed Reality” - [Ramakrishnan Kumaravelu](#), started in October 2025, directed by [Thomas Pietrzak](#) and co-supervised with [Donald Degraen](#)
- “Automatic Information Management for Collaborative Spaces” - [Antoine Nollet](#), started in October 2024, directed by [Sylvain Malacria](#) and co-supervised with [Carla Griggio](#)

Master’s and Bachelor’s theses

- “Implémentation de techniques d’interaction pour naviguer dans des vidéos à l’aide de technologies Web”, David Adamov - Stage de license (2024)
- “Création d’un environnement expérimental pour étudier l’impact d’annotations automatiques dans l’annotation manuelle de vidéos”, Audrey Heurtaux - stage de BUT 3 (2024)
- “Comparaison de vidéos d’escalade de vitesse par manipulation directe”, Baptiste Kieffer - Stage de license (2022)
- “Effects of Damaging Plants in Human Plant Interactions”, Patrick Speroff, Master thesis (2021)
- “Human Actuation for Fast-Prototyping of Haptics in Virtual Reality”, Ziqian “Charlie” Chen, Master thesis (2021)
- “Design Space of Graphical User Interfaces for Body-based Interactions”, Saumya Agarwal, Master thesis (2021)
- “Microinteractions for Single-Handed Finger Input”, Rhett Dobinson, Master thesis (2021)
- “Physics-based Interactions for Virtual Reality”, Arsen Tabaku, Master thesis (2020)

Volunteering

Organization

National organizations:

- [GDR IHM](#) - coordinator of the [UX/ID working group](#) since 2025

International conferences and events:

- [IHM'25](#) - Publication co-chair
- [IHM'24](#) - Doctorial Consortium co-chair
- [ACM UIST'22](#) - Social co-chair

Chairing

I have been in the program committees or editorial boards of the following conferences:

- ACM [ISS'19](#) [ISS'21](#) [ISS'22](#) [ISS'23](#)
- ACM [DIS'22](#)
- [PerDis'20](#)
- ACM [AHS'21](#) conference
- ACM [CHI'25](#) and [CHI'26](#)

Reviewing

I have reviewed for the following conferences:

- [ACM AHS'20](#) '21
- [ACM DIS'22](#)
- [ACM CHI'18](#) '19 '20 '21 '22 '23 '24 '25
- [IHM'18](#) '20 '21 '22 '25
- [ACM IMX'24](#)
- [ACM ISS'18](#) '19 '20 '21 '22 '23
- [ACM MobileHCI'19](#) '20 '21
- [ACM NordiCHI'18](#) '20
- [ACM TEI'18](#) '22
- [ACM UIST'19](#) '20 '21
- [ECCE'24](#)
- [IEEE EuroHaptics'24](#)
- [IEEE VRST'25](#)

And the following journals:

- [IJHCI](#)
- [IEEE TAFFC](#)
- [ACM ToCHI](#)

Teaching

Teaching assistant

- [Introduction à l'Interaction Humain-Machine](#), IUT de Lille, every year from 2022 to 2025
- [IHM](#), Université de Lille (L3) every year from 2022 to 2025
- [Technologies Web](#), Université de Lille (L1), 2022-2023
- [HCI core lecture](#), Saarland University, Winter semester 2019-2020
- [Développement d'applications interactives 2D, 3D, Mobile et Web](#), Télécom ParisTech, 2015-2018
- [Interaction Homme-Machine](#), Télécom ParisTech, 2015-2018
- [Paradigmes de programmation](#), Télécom ParisTech, 2015-2018
- [Visualization](#), Télécom ParisTech, 2015-2018