



## Michel Beaudouin-Lafon

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## Biography

Michel Beaudouin-Lafon is Professor of Computer Science at Université Paris-Saclay (formerly Paris-Sud) since 1992 and senior member of the prestigious Institut Universitaire de France since 2011. He was director of LRI, the laboratory for computer science joint between Université Paris-Sud and CNRS (2002-2009), chair of the Science and Technology of Information and Communication (STIC) department (1300 faculty, 800 Ph.D. students, 22 laboratories, 2018-2020) and adjunct director for research of the Graduate School in Computer Science of Université Paris-Saclay (2020-2021). He is deputy director of LISN, *Laboratoire Interdisciplinaire des Sciences du Numérique* (Univ. Paris-Saclay & CNRS, 380 members).

Michel has worked in human-computer interaction (HCI) for over 35 years and was head of the Human-Centered Computing group at LRI (50 members including 14 faculty). He was elected to the ACM CHI Academy in 2006, “an honorary group of individuals who have made extensive contributions to the study of human-computer interaction and who have led the shaping of the field.” He received the Silver Medal from CNRS, the national research center for scientific research, and was named ACM Fellow in 2022.

His research interests include fundamental aspects of interaction, engineering of interactive systems, computer-supported cooperative work and novel interaction techniques. His current research is conducted in the ex)situ group, a joint lab between LISN and Inria. In 2011 he was awarded a 6.7M€ grant for the Digiscope “Equipment of Excellence” project that created a unique network of ten interactive rooms. In 2016 he received a 2.5M€ European Research Council (ERC) Advanced Grant to investigate unified principles of interaction, and a follow-up Proof-of-Concept ERC grant in 2023. He is the scientific director of the new “Equipment of Excellence” CONTINUUM, which received a 13.6M€ grant to create a national infrastructure for interaction, visualisation and collaboration, and co-director of the 38M€ national network (“PEPR”) eNSEMBLE on the Future of Collaboration.

He sits on the editorial board of ACM Transactions on CHI, is the editor of the HCI section of the ACM Books series, and sits on many program committees (especially ACM CHI, ACM UIST, ACM CSCW). He has been a member of the European Research Council (ERC) evaluation panels and has conducted numerous expertise both nationally and internationally.

Michel founded AFIHM, the francophone association for human-computer interaction, in 1996 and has been a member of the ACM Council, ACM Europe Council and ACM Publications Board. He is currently vice-chair of the ACM Technology Policy Council. He chaired the ACM UIST conference in 2002 and the E-CSCW conference in 2004. He was papers chair for ACM CHI in 2001 and program chair for ACM UIST in 2008. He was technical program co-chair of ACM CHI in Paris in 2013 (3550 participants, 1000 presentations). He received the ACM SIGCHI Lifetime Service Award in 2015.

## Education

1979-1982 *Grande Ecole* (engineering school in Computer Science), ENSEEIHT, Toulouse  
1982 Engineering degree in Computer Science and Applied Mathematics, Toulouse  
1982-1985 Ph.D. thesis at *Laboratoire de Recherche en Informatique*, Univ. Paris-Sud  
1992 *Habilitation à diriger des recherches*, Univ. Paris-Sud

## Employment

1984 Lecturer, Université Paris-Sud  
1988 Assistant Professor, Université Paris-Sud  
1992 Professor, Université Paris-Sud  
1992-1993 Sabbatical at Univ. Toronto, Xerox PARC, DEC PRL, Rank Xerox EuroPARC  
1997 Professor first class, Université Paris-Sud, promoted to *Classe exceptionnelle* in 2006  
1998-2000 Visiting professor, Aarhus University (Denmark)  
2010-2012 Sabbatical at Stanford University  
2011-2016 Senior member of *Institut Universitaire de France*

## Honors

CNRS Silver Medal, 2022. ACM Fellow, 2022.  
Member of the ACM CHI Academy, 2006. ACM SIGCHI Lifetime Service Award, 2015.  
Best papers awards: ACM CHI 2012, 2014, 2017, 2019; ACM UIST 2015; IHM 2001, 2006, 2009, 2021.  
Honorable mentions: ACM CHI 2012, 2018, 2021, 2022(x2); Notable mention: ACM UIST 2011.

## Research

Research topics cover a broad spectrum of HCI: engineering for HCI, with tools and toolkits for interaction programming [9, 15]; fundamental aspects of interaction [7], including pointing [5, 6, 11], human-computer partnerships [13] and the *instrumental interaction* conceptual model [3]; advanced interaction techniques [1,10,17]; computer-supported cooperative work [2], including remote collaboration [14], shared editing [12] and technologies for the home [4]; design and research methods [18], including participatory design [4] and the Touchstone platform [8, 16].

## Selected publications

210 publications including 3 books, 12 edited books or special issues, 23 book chapters, 14 journal articles, 77 articles in top international conference. 15 articles with over 100 citations, h-index 46.

1. T. Baudel & M. Beaudouin-Lafon, "CHARADE: Remote Control of Objects Using Free-Hand Gestures", *Communications of the ACM*, Vol 36, n° 7, July 1993, pp 28-35.
2. M. Beaudouin-Lafon (editor), *Computer-Supported Co-operative Work*, Trends in Software 7, John Wiley & Sons, 1999. Available on-line at <http://www.lri.fr/~mbl/Trends-CSCW>
3. M. Beaudouin-Lafon, "Instrumental Interaction: an Interaction Model for Designing Post-WIMP User Interfaces", *Proc. Human Factors in Computing Systems (CHI'00)*, ACM, 2000, pp 446-453.
4. H. Hutchinson, W. Mackay, B. Westerlund, B. Bederson, A. Druin, C. Plaisant, M. Beaudouin-Lafon, S. Conversy, H. Evans, H. Hansen, N. Roussel, B. Eiderbäck, Sinna Lindquist & Y. Sundblad. "Technology Probes: Inspiring Design for and with Families". *Proc. Human Factors in Computing Systems (CHI'03)*, ACM, 2003, pp 17-24.
5. Y. Guiard & M. Beaudouin-Lafon, "Target acquisition in multiscale electronic worlds", *International Journal of Human Computer Studies (IJHCS)*, Elsevier, 61(6):875-905, Dec. 2004.
6. R. Blanch, Y. Guiard & M. Beaudouin-Lafon. "Semantic Pointing: Improving Target Acquisition with Control-Display Ratio Adaptation". In *Proceedings of ACM Conference on Human Factors in Computing Systems (CHI2004)*. ACM, 2004, pp 519-526.
7. M. Beaudouin-Lafon, "Human-Computer Interaction", *Interactive Computation: The New Paradigm*, D. Goldin, S. Smolka & P. Wegner (eds), Springer, 2006, pp 227-254.
8. W. Mackay, C. Appert, M. Beaudouin-Lafon, O. Chapuis, Y. Du, J.-D. Fekete & Y. Guiard, "Touchstone: Exploratory Design of Experiments", *Proc. Human Factors in Computing Systems (CHI'07)*, ACM, 2007, pp 1425-1434.
9. C. Appert & M. Beaudouin-Lafon, "SwingStates: adding state machines to Java and the Swing toolkit", *Software: Practice and Experience*, 38(11):1149-1182, 2007.
10. M. Beaudouin-Lafon, S. Huot, M. Nancel, W. Mackay, E. Pietriga, R. Primet, J. Wagner, O. Chapuis, C. Pillias, J. Eagan, T. Gjerlufsen & C. Klokmoose, "Multi-surface Interaction in the WILD Room", *IEEE Computer*, April 2012, pp 48-56.
11. M. Nancel, O. Chapuis, E. Pietriga & M. Beaudouin-Lafon, "Mid-air Pointing on Ultrawalls", *Transactions on Computer-Human Interaction (TOCHI)*, 22(5), article 21, ACM, 2015, 62 pages.
12. C. Klokmoose, J. Eagan, S. Baader, W. Mackay, M. Beaudouin-Lafon, "Webstrates: Shareable Dynamic Media", *Proc. User Interface Software & Technology (UIST'15)*, ACM, 2015, p. 280-290. **Best Paper**.
13. W. Liu, R. Lucas D'Oliveira, M. Beaudouin-Lafon, O. Rioul, "BIGnav: Bayesian Information Gain for Guiding Multiscale Navigation", *Proc. Human Factors in Computing Systems (CHI'17)*, ACM, 2017, pp 5869-5880. **Best paper**.
14. I. Avelino, C. Fleury, W. Mackay, M. Beaudouin-Lafon, "CamRay: Camera Arrays Support Remote Collaboration on Wall-Sized Displays". In *Proc. ACM Conference on Human Factors in Computing Systems (CHI '17)*, ACM, 2017, pp 6718-6729.
15. G. Leiva, N. Maudet, W. Mackay, M. Beaudouin-Lafon, "Enact: Reducing Designer-Developer Breakdowns when Prototyping Custom Interactions". *ACM Transactions on Computer-Human Interaction (TOCHI)*, ACM, 2019, Article 19, 48 pages.
16. A. Eiselmayer, C. Wacharamanotham, M. Beaudouin-Lafon, W. Mackay, "Touchstone2: An Interactive Environment for Exploring Trade-offs in HCI Experiment Design". In *Proc. ACM Conference on Human Factors in Computing Systems (CHI '19)*, ACM, 2019, 11 pages. **Best paper**.
17. H. Han, M. Renom, W. Mackay, M. Beaudouin-Lafon, "Textlets: Supporting Constraints and Consistency in Text Documents". In *Proc. ACM Conference on Human Factors in Computing Systems (CHI 2020)*. ACM, 2020, 14 pages. **Honorable Mention**.
18. M. Beaudouin-Lafon, S. Bødker, W. Mackay, "Generative Theories of Interaction", *ACM Trans. Computer-Human Interaction (TOCHI)*, Article 45, 54 pages, 2021.

## Teaching

Taught in every teaching program of the Computer Science department, Université Paris-Sud (now Paris-Saclay). Created new courses: Computer graphics and interaction, Advanced computer graphics, Introductory human-computer interaction (undergraduate); Fundamentals of human-computer interaction, Groupware and computer-supported cooperative work (graduate); Design and evaluation of interactive systems; Fundamentals of Situated Computing (graduate, with Wendy Mackay). Taught at summer schools and abroad, incl. Aarhus Univ. (DK) and Stanford Univ. (USA).

Created and chaired the Interaction specialty of the Masters in Computer Science at Univ. Paris-Sud & Univ. Paris-Saclay (2010-2017), and the Univ. Paris-Sud branch of the European Human-Computer Interaction & Design Masters of the EIT Digital Master School (2011-2017).

## Ph.D. students

Currently advising 3 Ph.D. students. Advisor of 33 Ph.D. students (14 as co-advisor) who defended their thesis; 19 have continued into research in academia or industry, including 6 CNRS or Inria researchers and 8 professors or assistant professors. Recent graduates:

- Mathieu Nancel (2012, 50%), Inria Junior Researcher at Inria Lille;
- Can Liu (2015, 20%), Assistant Professor at City University Hong Kong;
- Nolwenn Maudet (2017, 50%), Assistant Professor at Univ. Strasbourg;
- Ignacio Avellino (2017, 25%), CNRS Junior Researcher at ISIR, Sorbonne Université;
- Wanyu Liu (2018, 20%), CNRS Junior Researcher at IRCAM;
- Germán Leiva (2018, 100%), Assistant Professor at Univ. Aarhus, Denmark;

## Professional service

### JOURNALS AND CONFERENCES

Current editorial boards: ACM Books (HCI series EiC), ACM Trans. Computer-Human Interaction.

Conference chair or co-chair: ACM CHI 2013 (Tech. Prog. co-chair), ACM UIST 2001, E-CSCW 2005, IHM 2004. Program committee chair: ACM CHI 2001, 2010; ACM UIST 2008; IHM 1995, 2007.

Program committees of top HCI conferences: ACM CHI, ACM UIST, ACM CSCW, etc.

### MANAGEMENT OF RESEARCH

Deputy director, Laboratoire Interdisciplinaire des Sciences du Numérique, U. Paris-Saclay (2022-).

Adjunct director for research, Graduate School in Computer Science, Univ. Paris-Saclay (2020-2021).

Chair of the Computer Science department (STIC), Univ. Paris-Saclay (2018-2020).

Member of the scientific committee of CNRS computer science institute INS2I (2015-2018).

Member (2003-2010) of the steering committee of Digiteo, a research park in computer science gathering 2000 researchers from 10 research organizations of the Paris-Saclay Campus.

Director of LRI, (2002-2009) a joint research lab between Université Paris-Sud and CNRS: 280 members including 100 faculty and researchers and 125 Ph.D. students.

Member of ANR (National Research Agency) area committee for Computer Science (2009-2012).

### RESEARCH EVALUATION

Member of European Research Council evaluation panels for Starting, Advanced & Synergy grants.

Expert for several foreign agencies: EPSRC (UK), NSERC (Canada), COFECUB (Brazil).

Member of the evaluation committees of several French research laboratories.

Member of 82 Ph.D. committees and 23 habilitation committees.

Member of the hiring committees of several French universities.

### SOCIETIES

Founder and first president (1996-98) of AFIHM, the Francophone association in human-computer interaction. Vice-president (2002), member of the board (2002-2006).

Member-at-large of ACM Council (2000-2008). Member of ACM Publications board (2002-2009).

Founding member of ACM Europe Council (2009-2015), EUACM policy office (2015-2019), Europe Technology Policy Committee (2019-). Vice-Chair of ACM Technology Policy Council (2019-).