

**Name:** Sylvain Calinon

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Born January 12th, 1980 (Yverdon, Switzerland). *Marital status:* Single. *Citizenship:* Swiss and French.

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#### Employment history:

2018–curr.	Senior Research Scientist	Idiap Research Institute, Martigny, Switzerland.
2014–curr.	Lecturer	Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland.
2014–2017	Research Scientist	Idiap Research Institute, Martigny, Switzerland.
2009–2014	Team Leader	Department of Advanced Robotics, IIT, Genova, Italy.
2007–2009	Postdoctoral Fellow	Learning Algorithms and Systems Laboratory, EPFL, Switzerland.

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#### Education:

2003–2007	PhD in Robotics	Learning Algorithms and Systems Laboratory (LASA), Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. <i>Advisor:</i> Prof. Aude Billard.
2001–2003	MSc Microengineering	Autonomous Systems Laboratory (Roland Siegwart), EPFL.
1998–2001	BSc Microengineering	Ecole Polytechnique Fédérale de Lausanne, Switzerland.

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#### Research Projects & Funding Record:

2019–2023	Coordinator	LEARN-REAL (Learning Physical Manipulation Skills with Simulators using Realistic Variations), CHIST-ERA Collaborative Project, SNSF.
2024–2026	Leader for Idiap	KREATIV (Installation at Phänomena: The roles of AI and robotics for creative and artistic applications in both digital and physical worlds), Agora, SNSF.
2023–2024	Leader for Idiap	AI-powered directional light unit for intelligent dentist chairs, Innovation Booster Robotics.
2023–2024	Leader for Idiap	Force-based Assembly with Autonomous Learning, Swiss Robotics Competence Center.
2023–2026	Leader for Idiap	Smart-Dispensing (Programming of a complex deposit task through learning from demonstration), Innosuisse.
2022–2026	Leader for Idiap	INTELLIMAN (AI-Powered Manipulation System for Advanced Robotic Service, Manufacturing and Prosthetics), Horizon Europe.
2022–2025	Leader for Idiap	SESTOSENSE (Physical Cognition for Intelligent Control and Safe Human-Robot Interaction), Horizon Europe.
2021–2024	Leader for Idiap	SWITCH (Learning by Switching Roles in Physical Human-Robot Collaboration), Lead Agency programme, SNSF.
2020–2024	Leader for Idiap	CODIMAN (Cobotics, digital skills and the re-humanization of the workplace), National Research Programme "Digital Transformation", SNSF.
2019–2022	Leader for Idiap	COB'HOOK I+II (Dexterous manipulation for electroplating jig loading in the watchmaking industry), Innosuisse.
2018–2022	Leader for Idiap	COLLABORATE (Co-production CeLL performing Human-Robot Collaborative AssEmbly), H2020-FoF.

2018–2022	Leader for Idiap	MEMMO (Memory of Motion), H2020-ICT.
2015–2018	Leader for Idiap	DexROV (Effective Dexterous ROV Operations in Presence of Communications Latencies), H2020-BG.
2015–2018	Leader for Idiap	I-DRESS (Assistive Interactive Robotic System for Support in Dressing), CHIST-ERA Collaborative Project, SNSF.
2012–2015	Leader for IIT	STIFF-FLOP (STIFFness controllable Flexible and Learn-able Manipulator for surgical Operations), FP7-ICT.
2016–2019	Leader for Idiap	TACT-HAND (Improving control of prosthetic hands using tactile sensors and realistic machine learning), D-A-CH Collaborative Project, SNSF.
2025-2028	Co-leader for Idiap	REHABOT (Specification and correction of physical human-robot behaviors for flexible rehabilitation robots, SNSF.
2020–2023	Co-leader for Idiap	NATAI (The Nature of Artificial Intelligence), Agora, SNSF.
2019–2022	Co-leader for Idiap	HEAP (Human-Guided Learning and Benchmarking of Robotic Heap Sorting), CHIST-ERA Collaborative Project, SNSF.
2018–2022	Co-leader for Idiap	ROSALIS (robot skills acquisition through active learning and social interaction strategies), SNSF.
2016–2017	Co-leader for Idiap	PLATFORM-MMD (Platform for Reproducible Acquisition, Processing, and Sharing of Dynamic, Multi-Modal Data), R'Equip grant, SNSF.
2012–2014	Co-leader for IIT	PANDORA (Persistent Autonomy through learNing, aDaptation, Observation and Re-plAnning), FP7-ICT.

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**Supervision of researchers at graduate and postgraduate level:**

Postdocs (10)	James Hermus (2024–, Idiap), Mattia Racca (2020–2022, Idiap), Marco Ewerton (2019–2022, Idiap), João Silvério (2019–2022, Idiap), Antonio Paolillo (2018–2019, Idiap), Andras Kupcsic (2017–2018, Idiap), Ioannis Havoutis (2012–2017, Idiap), Leonel Rozo (2012–2015, IIT), Danilo Bruno (2012–2015, IIT), Petar Kormushev (2009–2011, IIT).
PhD theses (7 ongoing, 14 completed)	Ante Marić (2023–, Idiap/EPFL), Yan Zhang (2022–, Idiap/EPFL), Cem Bilaloglu (2022–, Idiap/EPFL), Yiming Li (2022–, Idiap/EPFL), Teng Xue (2021–, Idiap/EPFL), Tobias Löw (2021–, Idiap/EPFL), Amirreza Razmjoo (2021–, Idiap/EPFL), Julius Jankowski (2020–2024, Idiap/EPFL), Suhan Shetty (2019–2024, Idiap/EPFL), Hakan Girgin (2018–2023, Idiap/EPFL), Teguh Lembono (2018–2022, Idiap/EPFL), Thibaut Kulak (2017–2021, Idiap/EPFL), Emmanuel Pignat (2016–2020, Idiap/EPFL), Noémie Jaquier (2016–2020, Idiap/EPFL), Ajay Tanwani (2015–2018, Idiap/EPFL), Martijn Zeestraten (2014–2018, IIT), João Silvério (2014–2017, IIT), Milad Malekzadeh (2012–2015, IIT), Tohid Alizadeh (2011–2014, IIT), Davide De Tommaso (2011–2014, IIT), Antonio Pistillo (2010–2013, IIT).
Visiting Researchers (2)	Pragna Das (2024, Keonn Technologies), Riccardo Zanella (2023, University of Bologna).
Visiting PhD students (11)	Giovanni Braglia (2023, University of Modena and Reggio Emilia), Xuemin Chi (2022-2024, Zhejiang University), Zhenwei Niu (2022–2023, Khalifa University), Boyang Ti (2021, Harbin Institute of Technology), Xiao Gao (2019–2020, Wuhan University), Jaroslaw Lokietko (2019, Goldsmiths University of London), Markku Suomalainen (2018, Aalto University), Daniel Berio (2015, Goldsmiths University of London), Leonel Rozo (2011, Polytechnic University of Catalonia).
Internships (14)	Maximilien Dufau (2024), Timothé Schlüssel (2024), Jiacheng Qiu (2024), Xiaowen Jiang (2022), Yifei Dong (2022), Stephen Monnet (2022), Louis Gevers (2021–2022), Nadia Hadjimbarek (2021), Lara Brudermuëller (2021), Mahdi Nobar (2021), Yong-Joon Thoo (2021), Clément Vaes (2019-2020, Université Catholique de Louvain), Hakan Girgin (2018, Bogazici University), Olivier Baseggio (2017).

MSc theses (20)	Alice Guntli (2023-2024, EPFL, ABB), Jean Lesur (2023, EPFL), Tobias Michel (2023, EPFL), Victor Dramé (2023, EPFL), Cédric Mariéthoz (2022, Unidistance), Mickael Gindroz (2022, EPFL), Adi Niederberger (2021–2022, Unidistance), Valentin Honorez (2021, Faculté Polytechnique de Mons), Jérémy Maceiras (2019–2020, UniDistance), Yanick Bertrand (2017, EPFL), Fabien Crépon (2016–2017, EPFL), Noémie Jaquier (2016, EPFL), Emmanuel Pignat (2015, EPFL), Martijn Zeestraten (2012–2013, visiting), Affan Pervez (2012, visiting), Florent D'halluin (2008, EPFL), Murielle Richard (2007, EPFL), Frederic Magnard (2005, EPFL), Adrien Brossard (2004, EPFL), Andre Maurer (2004, EPFL), Marc Kunze (2003, EPFL).
MSc/BSc projects (52)	Chiara Evangelisti (2024, EPFL), Antony Picard (2024, EPFL), Theo Maetz (2024, EPFL), Jehan Piaget (2024, EPFL), Vincent Flattot (2023-2024, EPFL), Bastien Marconato (2023-2024, EPFL), Francesco Nonis (2022, EPFL), Vincent Nguyen (2022, EPFL), Filipe Ferreira Lopes (2022, EPFL), Maxime Pillet (2022, EPFL), Alice Guntli (2022, EPFL), Léane Donzé (2022, EPFL), Yassine Bakkali (2022, EPFL), Nadia Hadjmbarek (2021, EPFL), Johnny Borkhoche (2021, EPFL), Cédric Fontaine (2021, EPFL), Jean Lesur (2021, EPFL), Alexandre Marguet (2021, EPFL), Constantin Decaux (2021, EPFL), Samuel Bétrisey (2021, EPFL), Luis Carvalho (2020–2021, EPFL), Philipp Schuler (2020, EPFL), Thibault Niederhauser (2020, EPFL), Victoria Letertre (2020, EPFL), Jules Pochon (2020, EPFL), Lucas Surmely (2020, EPFL), Gauthier Mueller (2019, EPFL), Hedi Fendri (2019, EPFL), Christine Whiteley (2019, EPFL), Dylan Bourgeois (2017–2018, EPFL), Laila El Hamamsy (2017–2018, EPFL), Frederick Gusset (2017–2018, EPFL), Florian Standaert (2017–2018, EPFL), Robin Wuetschert (2017, EPFL), Yuxiang Li (2016–2017, EPFL), Christian Abbet (2015–2016, EPFL), Dominique Tao (2015–2016, EPFL), Nikol Guljelmovic (2016, visiting), Sunniva van Ipenburg (2012, visiting), Adrian Bodenmann (2008, EPFL), Florent D'halluin (2008, EPFL), Caroline Nadeau (2007, EPFL), Manon Pulvin (2007, EPFL), Adrien Hitz (2006, EPFL), Julien Epiney (2005, EPFL), Patrick Schoeneich (2005, EPFL), Jean-Joel Borter (2004, EPFL), Christophe Dubach (2004, EPFL), Vincent Hentsch (2004, EPFL), Andre Noth (2003, EPFL), Yves Linder (2003, EPFL), Cécile Grivaz (2003, EPFL).

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**Teaching activities:**

2015–2023	EPFL course EE613 — Machine Learning for Engineers.
2019–2023	Engineering Master program on Applied Artificial Intelligence, in partnership with Swiss Distance Learning University. Responsible for the courses on Robotics (A04).
2018–2023	Post-Master program AI Move (Artificial Intelligence and Movement in Industries and Creation) at Mines-ParisTech. Responsible for the courses <i>Statistical, Geometrical and Dynamical Representations of Movements</i> (M2C7) and <i>Human-Robot Interaction and Collaborative Robotics</i> (M4C1).

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**Committees / editorships:**

Program Chair	33rd IEEE Intl Conf. on Robot and Human Interactive Communication (RO-MAN'2024).
Technical committee chair	Model-based optimization for robotics, IEEE Robotics and Automation Society (2021–curr.).
Awards Committee	32nd Intl Conf. on Robotics in Alpe-Adria-Danube Region (RAAD'2023).
Publication chair	IEEE/RSJ Intl Conf. on Intelligent Robots and Systems (2015–2016)
Steering committee	ACM/IEEE Intl Conf. on Human-Robot Interaction (2011–2012)
Financial chair	ACM/IEEE Intl Conf. on Human-Robot Interaction (2011–2012)
Conference organizing committee	IEEE RO-MAN (2012–2013)
Associate Editor	IEEE Transactions on Robotics (2017–2020), IEEE Robotics and Automation Letters (2015–2020), Frontiers in Robotics and AI (2015–2020), Springer Intelligent Service Robotics (2015–2019), International Journal of Advanced Robotic Systems (2013–2017), IEEE ICRA (2012–2017), IEEE/RSJ IROS (2012–2017)

Workshops/Tutorial organizing committee	IEEE ICRA'2024, IEEE IROS'2023, IEEE ICRA'2023, IEEE ICRA'2022, IEEE ICRA'2021, IEEE ICRA'2020, SIAM AG'2019, IEEE ICRA'2019, IEEE/RSJ IROS'2018, IEEE/RSJ IROS'2017, IEEE ICRA'2017, IEEE/RSJ IROS'2016, IEEE/RSJ IROS'2015, IEEE RO-MAN'2015, IEEE ICRA'2015 and IEEE/RSJ IROS'2012
Special issue organizing committee	Robotics and Autonomous Systems (2019, Elsevier), Robotics and Automation Letters (2017, IEEE), Autonomous Robots (2017, Springer)
PhD Theses Examiner (23)	M. Spahn, TU Delft (2024), C. Rizzardo, IIT (2024), E. Triantafyllidis, University of Edinburgh (2024), Y. Fleytoux, Inria (2023), Q. Yang, Örebro University (2023), D. Carminati, Polytechnic University of Turin (2023), M. Simonič, University of Ljubljana, (2023), K. Merckaert, VUB (2023), M. Kiatos, Aristotle Univ. of Thessaloniki (2023), J. Chemin, LAAS (2022), V. Joukov, Univ. of Waterloo (2021), A. Depierre, Ecole Centrale de Lyon (2021), O. Mohammed, CNRS, Grenoble-Alps Univ. & INP Grenoble (2019), A.B. Tanfous, CRISTAL UMR - CNRS & IMT Lille-Douai (2019), P. Schlehüser-Caissier, UPMC (2018), H. Yin, IST and EPFL (2018), Y. Yang, Univ. of Edinburgh (2017), A. Colomé, Univ. Politècnica de Catalunya (2017), A. Paraschos, TU Darmstadt (2017), G. Raiola, ENSTA-ParisTech (2017), E. Coupeté, Mines-ParisTech (2016), M. Gonzalez-Fierro Palacios, Univ. Carlos III de Madrid (2014), L. Rozo, Univ. Politècnica de Catalunya (2013), D. Pardo, Univ. Politècnica de Catalunya (2009)
Grants Reviewer	European Research Council (ERC) for European Commission (2015–2018), Fonds de Recherche Nature et Technologies Québec (2014–2015), Marie Curie Fellowships (2013–2015)

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#### Bibliometry:

**h-index: 58, 14'000+ citations** (source: *Google Scholar*, 2024)

Complete list of publications available at: <https://calinon.ch>

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#### Awards:

##### Group prizes

2024	<b>Outstanding Paper Award Finalist</b> , Robotics: Science and Systems.
2024	<b>Best Paper Award</b> , IEEE Robotics and Automation Society (RAS) Technical Committee on Model-based Optimization for Robotics.
2023	Winner of the <b>Robot Air Hockey Challenge at NeurIPS</b> .
2022	<b>12 Stars of Europe Award</b> by the French Research Minister for the H2020 MEMMO European project coordinated by LAAS.
2022	<b>ICC Award</b> , International Create Challenge (with Gennady Plyushchev and Daniel Berio).
2022	<b>IEEE RAS Most Active Technical Committee Award</b> (with Adrien Escande, Yue Hu, and Patrick Wensing).
2009	<b>PROSE Awards</b> , co-author of a chapter in the <i>Springer Handbook of Robotics</i> , awarded for <b>Excellence in Physical Sciences &amp; Mathematics</b> by the Association of American Publishers Inc., Professional & Scholarly Publishing Division.
2008	<b>First prize</b> (LASA-EPFL Team) in the Grand Challenge on Human-Robot Interaction, IEEE Intl Conf. on Robotics and Automation (ICRA), Pasadena, California, USA.

##### Prizes awarded to my students

2024	<b>Faulhaber Award</b> , Alice Guntli, EPFL Master thesis.
2023	<b>Best Paper Award</b> , Tobias Löw, Idiap Award.
2022	<b>Best Student Award</b> , Teguh Lembono, Idiap Award.
2021	<b>Best Paper Award</b> , Suhan Shetty, Idiap Award.

- 2021 **Best Poster Award**, Thibaut Kulak, ICRA workshop "Towards Curious Robots: Modern Approaches for Intrinsically-Motivated Intelligent Behavior".
- 2019 **Best Presentation Award**, Noémie Jaquier, Conference on Robot Learning (CoRL).
- 2019 **Best Student Award**, Noémie Jaquier, Idiap Award.
- 2016 **Best Paper Award Finalist**, IEEE Intl Conf. on Robotics and Automation (ICRA).
- 2015 **Best Paper Award Finalist**, Intl Conf. on Intelligent Robotics and Applications (ICIRA).

*Personal prizes*

- 2017 **Best Paper Award**, Intelligent Service Robotics journal (Springer).
- 2013 **Excellence in Reviewing**, Robotics and Autonomous Systems (Elsevier), *in recognition of an outstanding contribution to the quality of the journal*.
- 2013 **Best Paper Award Finalist** of the IEEE/RSJ Intl Conf. on Intelligent Robots and Systems (IROS).
- 2009 **Best Paper Award Finalist** of the IEEE-RAS Intl Conf. on Humanoid Robots.
- 2008 Robotdalen Scientific Award for **Best 2007 PhD Thesis**.
- 2008 ABB Award for **Best 2007 PhD Thesis**.
- 2008 EPFL-Press Distinction for **Best 2007 PhD Thesis**.
- 2007 **Best Paper Award** of the IEEE Intl Symp. on Robot and Human Interactive Communication (RO-MAN).

**Invited talks (last 5 years):**

- Dec 2024 Mini-symposium at TU Delft, Netherlands.
- Nov 2024 Designing Humanoids: How Much Should We Learn from Humans? Workshop, Humanoids'2024, Nancy, France.
- Nov 2024 Selected Topics in Robot Learning seminar, TU Berlin, Science of Intelligence Cluster (SCIoI), Germany.
- Nov 2024 National Robotics Research Days, Paris, France.
- Sep 2024 International Workshop on Open-Ended Learning by Interactive Robots, Sorbonne University, Paris, France.
- Aug 2024 Empowering Human-Robot Collaboration Workshop, co-organized by the Innovation Booster Robotics, the Innovation Booster Artificial Intelligence, and the Swiss Robotics Competence Center, Switzerland Innovation Park Biel/Bienne (SIPBB).
- Jul 2024 Workshop on Mechanisms for Mapping Human Input to Robots: From Robot Learning to Shared Control/Autonomy, Robotics: Science and Systems (RSS'2024), Delft, Netherlands.
- May 2024 Franka Research Community Highlights Webinar.
- May 2024 ProxyTouch: Whole-body Proxy-Tactile Architectures for Industrial and Service Applications Workshop, IEEE Intl Conf. on Robotics and Automation (ICRA'2024), Yokohama, Japan.
- May 2024 Kinematic Aspects of Robotics Workshop, Radon Institute for Computational and Applied Mathematics (RICAM), Linz, Austria.
- Apr 2024 AI Valais/Wallis Workshop on Human-AI Teaming, Swiss Digital Center, Sierre, Switzerland.
- Apr 2024 Seminar at Department of Mechanical Engineering, IISc, Bangalore, India.
- Apr 2024 Workshop on Emerging Technologies and challenges for Exoskeleton, Bangalore, India.
- Mar 2024 Towards Efficient and Portable Robot Learning for Real-World Settings Workshop, European Robotics Forum, Rimini, Italy.
- Feb 2024 Seminar at the Institute for Cognitive Systems, Technical University of Munich (TUM), Germany.
- Feb 2024 Online lecture on Industrial Robotics and Cobotics, course on Cognitive Ergonomics and Neuroergonomics in HRI, IIT Gandhinagar.

- Dec 2023 Swiss Digital Conference, Sierre, Switzerland.
- Nov 2023 Colloquium at the Department of Mathematics, University of Fribourg, Switzerland.
- Nov 2023 Workshop on AI for Robotics, Naver Labs Europe, Grenoble, France.
- Nov 2023 3-minute pitch at TEDx Martigny, Switzerland.
- Oct 2023 ReconCycle Summer School, Mallorca, Spain.
- Oct 2023 Mathematics Colloquium at the University of Bern, Switzerland.
- Oct 2023 6th Workshop on Ergonomic Physical Human-Robot Collaboration: Harnessing Advancements in Robot Learning, IEEE/RSJ Intl Conf. on Intelligent Robots and Systems (IROS'2023), Detroit, USA.
- Sep 2023 6th International Workshop on Intrinsically Motivated Open-ended Learning (IMOL), Paris, France.
- Aug 2023 AI Olympics With RealAIGym: Is AI Ready for Athletic Intelligence in the Real World? workshop and competition, 32nd International Joint Conference on Artificial Intelligence (IJCAI), 2023, Macao.
- Jul 2023 AI for Good Global Summit, United Nations, Geneva, Switzerland.
- Jul 2023 Geriatrics Summit, Technical University of Munich (TUM), Garmisch-Partenkirchen, Germany.
- Jun 2023 Keynote speaker at the 32nd Intl Conf. on Robotics in the Alpe-Adria-Danube Region (RAAD), Bled, Slovenia.
- Nov 2022 Seminar at the University of Bologna, Italy.
- Nov 2022 Invited pitch at Prix Suisse 2022 organized by Initiative Switzerland, Bern.
- Nov 2022 Invited presentation for *Talking Robotics*.
- Jun 2022 Seminar series, Department of Computer Science, University of Innsbruck, Austria.
- Jun 2022 First International Symposium on Geriatrics, Munich Institute of Robotics and Machine Intelligence, TUM.
- May 2022 Musée de la Main UNIL/CHUV.
- Jan 2022 Seminar series organized by the Hong Kong Center for Logistics Robotics and by the Chinese University of Hong Kong.
- Dec 2021 Workshop on Design, Learning, and Control for Safe Human-Robot Collaboration, ICAR'2021, Ljubljana, Slovenia.
- Sep 2021 Workshop on Variable Impedance Robotics skills: Challenges and Opportunities, IROS'2021, Prague, Czech Republic.
- Sep 2021 Workshop on Object Recognition and Manipulation, Intl Conf. on Computer Vision Systems (ICVS).
- Sep 2021 50th anniversary of Dalle Molle Foundation & 30th anniversary of Idiap Research Institute, Martigny, Switzerland.
- Sep 2021 Science Valais "Carnotzet Scientifique", Martigny, Switzerland.
- Jun 2021 Workshop on Unlocking the potential of human-robot collaboration for industrial applications, ICRA'2021, Xi'an, China.
- May 2021 NASA ULI Robot Seminar Series (Effective Human-Robot Teaming to Advance Aviation Manufacturing), University of Wisconsin-Madison, USA.
- Oct 2020 Intl Workshop on Human-Friendly Robotics, Innsbruck, Austria.
- Jul 2020 Autonomous Learning Robots Lab, Karlsruhe Institute of Technology (KIT), Germany.
- Jun 2020 Naver Labs Europe, Grenoble, France.
- Mar 2020 Workshop on Human-Robot Collaboration & AI for industrial applications, European Robotics Forum (ERF), Malaga, Spain.

Martigny, October 22, 2024