BIOGRAPHICAL SKETCH

J-P. Merlet
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EDUCATION AND POST-DOCTORAL TRAINING

- 1993 Habilitation à diriger les recherches, Nice University
- 1986 Phd Thesis, Paris VI University (Jussieu).
- 1980 Master Thesis in Control Theory
- 1980 Engineer of the National Superior School of Mechanics of Nantes (ENSM).

PROFESSIONAL AND ACADEMIC APPOINTMENTS

- 2015 INRIA Senior Researcher (exceptionnal class)
- 2014 Head of the HEPHAISTOS project
- 2006 INRIA Senior Researcher (1st class)
- 2003-2012 member of INRIA Evaluation Board
- 2001 Head of the COPRIN project
- 1998 Head of the SAGA project
- 1994 INRIA Senior Researcher (2nd class)
- 1992, visiting researcher, Mechanical Engineering Laboratory, Tsukuba,
- 1990, visiting researcher, McGill University, Montreal, Canada,
- 1986, visiting researcher, Kyoto University, Japan
- 1984 INRIA Senior Scientist, Second class.
- 1983, research engineer, CEA (French Nuclear Agency)
- 1980-1981 INRIA Senior Scientist, Second class.
- 1980, engineer at Travaux Public de La Creuse (civil engineering)
- 1979, engineer at Lu (food industry)

AWARDS

- 1998, Award of the Altran foundation
- 2000, "Micron d'Or" award at the Micronora fair for the design of a micro-robot
- 2002, finalist for Best Paper Award of the 2002 ASME Mechanisms and Robotics Conference
- 2011: IFToMM Awards of Merits, the highest distinction of IFToMM
- 2014: IEEE Fellow
- 2015: doctor honoris causae Innsbruck University
- 2015: Excellence Price Côte d'Azur University

OFFICER IN PROFESSIONAL SOCIETIES (selected)

- Associate Editor, IEEE Transaction on Robotics (2002-2005)
- Associate Editor, Mechanism and Machine Theory (2005-2012)
- Associate Editor, ASME Journal of Mechanism and Robotics (2008-2011)
- Chair of IFToMM Technical Committee on Computational Kinematics (1997-2005)
- member of IFToMM Permanent Commission on History of Mechanism and Machine Science (2003-)
- Chair of IFToMM France section (2003-2012)
- member of IFToMM Executive Council (2012-), candidate for IFToMM presidency (2015)
- IEEE senior member (2013), fellow (2014)

RESEARCH and TEACHING INTERESTS

- system solving using geometrical, algebraic geometry and interval analysis based methods
- parallel robots
- optimal design of mechanisms
- nanotechnology, medical and assistive robotics

PUBLICATIONS

Full list of publications is available at http://www-sop.inria.fr/members/Jean-Pierre.Merlet/my_biblio.pdf.

Total Journal Papers: 42 Book Contributions: 7
Published books: 5 Conference papers: $\approx$ 150

STUDENTS/RESEARCHERS SUPERVISED

Note: INRIA is not an University and has only full-time researchers

- Graduate students: 40 (18 PhD) Post-Doc: 10

OUTREACH ACTIVITIES

- Reviewers in International Journals and Conferences
- Project reviewers for the European Community, NSF (USA), FWV (Austria), FCAR (Canada), Steacy Foundation (Canada), CNI (Italy), ANR (France), ISF (Israel), STW (Netherland), Finland Academy of Sciences
- General chairman, session chair and scientific committee in International Conferences (last chairmanship: IFToMM World Congress 2007, IROS 2008, ARK 2016)
- Editor IROS 2013
- member of the board of EURON (European Robotics Network) until 2013
- project leader at INRIA, previous member of INRIA Evaluation Board for 11 years, member of INRIA-Sophia executive board for the project committee (8 years), of CNRS GDR Scientific Council
- grants: 6 european projects, 10 national projects, 15 industrial projects

FIVE RECENT PUBLICATIONS

[1, 2, 3, 4, 5]

SELECTION OF SIGNIFICANT PUBLICATIONS

[6, 7, 8, 9, 10, 11, 3, 1]

References

[1] Merlet J-P. A formal-numerical approach for robust in-workspace singularity detection. *IEEE Trans. on Robotics*, 23(3):393–402, June 2007.

[2] Pavicic M., Merlet J-P., McKay B., and Megill N.D. Kochen-specker vectors. *J. Phys. A: Math Gen.*, 38(7):1577–1592, February 2005.

[3] Merlet J-P. Jacobian, manipulability,condition number, and accuracy of parallel robots. *ASME J. of Mechanical Design*, 128(1):199–206, January 2006.

[4] Merlet J-P. Still a long way to go on the road for parallel mechanisms. In *ASME 27th Biennial Mechanisms and Robotics Conf.*, Montréal, September 29- October 2, 2002.

[5] Carricato M. and Merlet J-P. Stability analysis of underconstrained cable-driven parallel robots. *IEEE Trans. on Robotics*, 29(1):288–296, 2013.

[6] Merlet J-P. Determination of 6D workspaces of Gough-type parallel manipulator and comparison between different geometries. *Int. J. of Robotics Research*, 18(9):902–916, October 1999.

[7] Merlet J-P., Gosselin C., and Mouly N. Workspaces of planar parallel manipulators. *Mechanism and Machine Theory*, 33(1/2):7–20, January 1998.

[8] Merlet J-P. Designing a parallel manipulator for a specific workspace. *Int. J. of Robotics Research*, 16(4):545–556, August 1997.

[9] Merlet J-P., Perng M-W., and Daney D. Optimal trajectory planning of a 5-axis machine tool based on a 6-axis parallel manipulator. In *ARK*, pages 315–322, Piran, June, 25-29, 2000.

[10] Merlet J-P. Solving the forward kinematics of a Gough-type parallel manipulator with interval analysis. *Int. J. of Robotics Research*, 23(3):221–236, 2004.

[11] Merlet J-P. *Parallel robots, 2nd Edition.* Springer, Heidelberg, 2005.