MANUEL DE LEÓN. ABRIDGED CURRICULUM VITAE

Personal Data
Present position: Research Professor,
Consejo Superior de Investigaciones Científicas, Madrid
Fellow of the Real Academia de Ciencias, Spain
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Degrees
1978 Ph.D. in Mathematics, Universidad de Santiago de Compostela
1975 Graduated in Mathematics, Universidad de Santiago de Compostela

Visiting Positions
Universidade Federal Fluminense, University of Calgary, University of Ghent,
University of Mannheim, University of Lille.

Research Interests
Differential geometry, symplectic geometry, Poisson manifolds, Cosserat media,
nonholonomic mechanics, geometric integrators, optimal control theory.

Select publications (For a complete list visit MathSciNet and Web of Knowledge)

ARTICLES
- L. A. Cordero, **M. de León**, M. Fernández: Examples of compact non-Kähler almost Kähler manifolds. *Proc. Amer. Math. Soc.*, **95**, 2 (1985) 280-286.
- F. Cantrijn, **M. de León**, E. A. Lacomba: Gradient vector fields on cosymplectic manifolds. *Journal of Physics A: Math. Gen.*, **25** (1992), 175-188.
- **M. de León**, D. Martín de Diego: On the geometry of non-holonomic Lagrangian systems. *J. Math. Phys.* **37** (7) (1996), 3389-3414.
- **M. de León,** M. Epstein: Geometrical Theory of Uniform Cosserat Media. *Journal of Geometry and Physics* **26** (1998), 127-170.
- **M. de León**, M. Fernández, R. Ibáñez: The canonical spectral sequences for Poisson manifolds. *Israel Journal of Mathematics* **106** (1998), 133-155.
- F. Cantrijn, **M. de León,** D. Martín de Diego: On almost-Poisson structures in nonholonomic mechanics. *Nonlinearity* **12** 3 (1999), 721-737.
- **M. de León**, M. Epstein: Continuous distributions of inhomogeneities in liquidcrystal-like bodies. *Royal Society of London Proceedings Series A: Math. Phys. Eng. Sci.* **457** 2014 (2001), 2507-2520.
- J. Cortés, **M. de León**, D. Martín de Diego, S. Martínez: Geometric description of vakonomic and nonholonomic dynamics. Comparison of solutions. SIAM *Journal of Control and Optimization* **41** 5 (2003), 1389-1412.
- **M. de León**, D. Martín de Diego, A. Santamaría-Merino: Geometric Numerical Integration of Nonholonomic Systems and Optimal Control Problems, *European Journal of Control* **10** (2004), 520-526.
- **M. de León**, J. C. Marrero, E. Martínez: Lagrangian submanifolds and dynamics on Lie algebroids. *J. Phys. A: Math. Gen.* **38** (2005), R241-R308. (Topical review).

BOOKS
- **M. de León**, P. R. Rodrigues: *Generalized Classical Mechanics and Field Theory*. North-Holland Mathematics Studies, 112, North-Holland, Amsterdam, 1985.

- **M. de León**, P. R. Rodrigues: *Methods of Differential Geometry in Analytical Mechanics.* North-Holland Mathematics Studies, 158, North-Holland, Amsterdam, 1989.
- L. A. Cordero, C. T. J. Dodson, **M. de León**: *Geometry of Frame Bundles. Mathematics and Its Applications,* Kluwer Academic Publishers, Dordrech, 1989.
- *Fotografiando las Matemáticas*, Carroggio, Barcelona, 2000. Editor.

PHD STUDENTS
- *Modesto Salgado Seco* (1984), *Luis Carlos de Andrés Domingo* (1986), *María Elena Vázquez Abal* (1988), *Isabel Méndez Naya* (1989),
- *David Martín de Diego* (1995, outstanding thesis award by UCM),
- *Jorge Cortés Monforte* (2001, outstanding thesis award by UCIIIM, published in Lecture Notes in Mathematics, 1793, Springer, Berlin, 2002),
- *Sonia Martínez Díaz* (2002, one of the chapters of the thesis have been awarded with the CDC Best Student-Paper award by the IEEE Control Systems Society).
- *Aitor Santamaría Merino* (2005).

Societies
Member of AMS, SIAM, RSME, RSEF, EMS, FESPM.

Editorial Boards
Extracta Mathematicae, Reports on Math. Physics, Journal of Geometry and Symmetry in Physics, Mediterranean Mathematical Journal, International Journal of Geometric Methods in Modern Physics, Journal of Geometric Mechanics (Editor-in-Chief).

Organization of Scientific events
- Member of Organizing Committees and Scientific Committees of a number of workshops and conferences.
- Coordinator for the World Mathematical Year 2000 in Spain.
- President of the ICM 2006, Madrid

Offices
- Vicepresident of the Real Sociedad Matemática Española (until 2005)
- President of the Spanish Committee of Mathematics (CEMAT), 2004-2007.
- Director of the Instituto de Ciencias Matemáticas, ICMAT (CSIC-UAM-UC3M-UCM).
- Member of the Committee of Physics and Engineering Physics, CSIC, 2001-2008 (two terms).
- Coordinator of Mathematics of the Spanish Agency for Evaluation and Prospective (Ministry of Education and Science), 2003-2005
- Member (Experimental Sciences) of the Advisor Committee for Evaluation and Prospective (Ministry of Education and Science), 2005-2013 (two terms).
- Member-at-Large of the EC of IMU, 2007-2010.
- Member of the Core Group of the PESC Committee, European Science Foundation, 2006-2012 (two terms).
- Promoting member of the research grant CONSOLIDER-INGENIO MATHEMATICA i-MATH (2007-2011); 7500000 €
- Coordinator of CSIC-node of research grant SIMUMAT of Madrid (800000 €), 2006-2008; Principal Investigator 2008-2009.

STATEMENT AND DESCRIPTION OF ACTIVITIES
- I am willing to commit myself to the IMU Ececutive Committee for a second term.
- I am also willing to continue my task as IMU EC representative on ICSU activities as well as in ICMI.
- In the past four years I gave advice to the organizers of ICM 2010, passing them my experience as president of the ICM 2006 organizing committee. I also declare my willingness to give advice to the organizers of ICM 2014.