

Curriculum Vitae – Résumé

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RENZO LUIGI RICCA – ORCID ID: 0000-0002-7304-4042

Office: Department of Mathematics and Applications, U. Milano-Bicocca (UniMiB).

E-mail: renzo.ricca@unimib.it - URL: <https://www.renзорicca.com/>

Education

Ph.D. (Mathematics) (16.07.1994). U. Cambridge (Trinity College). Title: *Geometric and topological aspects of vortex filament motion*. Supervisor: Professor H.K. Moffatt.

Professional Career (selected)

2023-2026, Distinguished Visiting Guest Professor, Beijing U. Technology

1992-1997, 1998-2003 Research Fellow and Lecturer, University College London

1993-1995 Research Associate, Politecnico di Torino

Awards and Distinctions (selected)

2023-2026 *BOTAP Scholarship*, Beijing Overseas Talent Aggregation Project - Haiju Project, P.R. China.

2003-2007 *Return Scholar*, Italian Ministry of Education, Italy

Direction and Organisation of International Programs (selected)

2019 (August-September) Scientific Director and Principal Organiser, *Knotted Fields*, Beijing U. Technology (BJUT) & Northwestern U., Xi'an.

2011 Principal Organiser and Scientific Director, 4-month program on *Knots and Applications*. Mathematics Research Centre “E. De Giorgi”, Scuola Normale Superiore, Pisa

2000 Principal Organiser, 4-month program *Geometry and Topology of Fluid Flows*. Isaac Newton Institute for Mathematical Sciences, Cambridge

Highest impact publications (selected)

Moffatt, H.K. & Ricca, R.L. (1992) Helicity and the Călugăreanu invariant. *Proc. R. Soc. A* **439**, 411-429.

Ricca, R.L. (1994) The effect of torsion on the motion of a helical vortex filament. *J. Fluid Mech.* **273**, 241-259.

Goldstein, R.E., Moffatt, H.K., Pesci, A.I. & Ricca, R.L. (2010) A soap film Möbius strip changes topology with a twist singularity. *PNAS USA* **107**, 21979-21984.

Ricca, R.L. & Nipoti, B. (2011) Gauss' linking number revisited. *J. Knot Theory & Its Ram.*, **20**, 1325-1343.

Tubiana, L., Ricca, R.L. *et al.* (2024) Topology in soft and biological matter. *Phys. Rep.* **1075**, 1-137.

Edited Volumes (selected)

Ricca, R.L. & Liu, X. (exp. May 2024) *Knotted Fields*. Lecture Notes in Mathematics **2344**. Springer-Verlag. Heidelberg, Germany. In press.

Ricca, R.L. (2009) *Lectures on Topological Fluid Mechanics*. Springer-CIME Lecture Notes in Mathematics **1973**. Springer-Verlag. Heidelberg, Germany.

Ricca, R.L. (2001) *An Introduction to the Geometry and Topology of Fluid Flows*. NATO ASI Series II, **47**. Kluwer. Dordrecht, The Netherlands.

Ricca, R.L. & Liu, X. (exp. June 2024) *Knotted Fields*. Lecture Notes in Mathematics **2344**. Springer-Verlag. Heidelberg, Germany. In press. ISBN: 978-3-031-57984-4

Bibliometric Data and Impact

• Google Scholar: h-index = 25; i10-index = 45; 2706 citations