

## LUIGI GRASSELLI

**Full Professor** of Geometry (s.s.d. MAT03) in the Department of Sciences and Methods for Engineering (DISMI), University of Modena and Reggio Emilia (UNIMORE).

### University Career

**Researcher** in Geometry and Algebra, Sciences Faculty, **University of Modena**, 1.8.1980 - 2.8.1987.

**Associate Professor** of Geometry, Engineering Faculty, **Università of Bologna**, 3.8.1987 - 31.10.1991.

**Full Professor** of Geometry, Engineering Faculty, **Polytechnic of Milano**, 1.11.1991 - 31.10.1994 and **Full Professor** of Geometry and Algebra, Engineering Faculty, **University of Bologna (Reggio Emilia site)**, 1.11.1994 - 31.10.1998.

**Vice-Rector in Reggio Emilia site**, University of Modena and Reggio Emilia, 7.4.2000 - 31.10.2005 and 1.11.2008 - 31.10.2013.

**Member of the Evaluation Team** of the University of Modena and Reggio Emilia, 1.11.2005 - 31.12.2009.

**Scientific director of the University Library in Reggio Emilia site**, June, 2006 – June, 2009.

**Vice-Director of DISMI**, 1.11.2018 - 3.7.2019.

### Research Activity

**Author** of more than 60 scientific publications, concerning topics of Algebraic Topology, Geometric and Combinatorial Topology, Knot Theory, Graph Theory.

In particular:

- study of n-dimensional pl-manifolds represented by edge-colored graphs;
- applications of the representation theory by edge-colored graphs to the Random Tensor Models Theory, as an approach to Quantum Gravity;
- study of the relationships between the representation by edge-colored graphs and other known theories for representing pl- manifolds (Heegaard diagrams, colored knots, Seifert fibrations, RR-systems, branched coverings);
- research of standard spines for tridimensional manifolds;
- structure of the fundamental groups of tridimensional manifolds;
- applications of the tessellation theory in engineering contexts;
- relationships between art and geometry.

**Author** of 3 university textbooks concerning topics of Geometry and Linear Algebra.

Reggio Emilia, 10 settembre 2022

Luigi Grasselli