Emma Lepri

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🌐 emmalepri.github.io/

Personal information

Nationality: **Italian**

Current position

Sep. 2023 – now **Research associate**, *University of Glasgow*, Glasgow, Mentor: Michael Wemyss.

Education

Nov. 2019 – May 2023 **Ph.D. in Mathematics**, *Università la Sapienza, Rome*, cum laude, Tutor: Domenico Fiorenza, Supervisor: Marco Manetti
thesis title: "L_∞ morphisms and semiregularity".

Sep. 2017 – July 2019 **Master Degree in Mathematics**, *Università la Sapienza, Rome*, 110/110 cum laude
thesis title: "Model categories and deformations of diagrams of commutative algebras", under the supervision of Marco Manetti.

Sep. 2014 – July 2017 **Bachelor Degree in Mathematics**, *Università la Sapienza, Rome*, 110/110 cum laude
thesis title: "Categorie modello e struttura modello di Quillen sulla categoria degli spazi topologici", ("Model categories and Quillen model structure on the category of topological spaces"), under the supervision of Marco Manetti.

Papers and preprints

○ E. Lepri, M. Manetti, *On deformations of diagrams of commutative algebras*, In: E. Colombo et al. (eds.), Birational Geometry and Moduli Spaces, Springer INdAM Series **39** (2020), 77-107. DOI: 10.1007/978-3-030-37114-2_6 arXiv:1902.10436

○ E. Lepri, M. Manetti, *Connections and L_∞ liftings of semiregularity maps*, Journal of Geometry and Physics 168 (2021) 104303, DOI: 10.1016/j.geomphys.2021.104303 arXiv:2102.05016

○ E. Lepri, *Cyclic forms on DG-Lie algebroids and semiregularity*, Rend. Sem. Mat. Univ. Padova 151 (2024), pp. 85–121 DOI 10.4171/RSMUP/129 arXiv:2104.12658

○ E. Lepri, *An elementary approach to the model structure on DG-Lie algebras*, Rend. Mat. Appl., 44 no. 1-2 (2023), 53-76 journal link arXiv:2211.11669

○ R. Bandiera, E. Lepri, M. Manetti, *L_∞ liftings of semiregularity maps via Chern-Simons classes*, Advances in Mathematics, Volume 435, Part A, 2023, 109358. DOI: 10.1016/j.aim.2023.109358 arXiv:2111.12985

○ R. Bandiera, E. Lepri, M. Manetti, *Semiregularity maps and deformations of modules over Lie algebroids*, Pure Appl. Math. Q, Volume 20 (2024) Number 5, DOI 10.4310/PAMQ.241105042944 arXiv:2208.00694

○ J. Karmazyn, E. Lepri, M. Wemyss, *Trivial extension DG-algebras, unitally positive A_∞-algebras, and applications* arXiv:2411.17359

Teaching

2024 **Lecturer**, *Homological Algebra*, First part, Ph.D. course, SMSTC: Scottish Mathematical Sciences Training Centre

2021 – 2022 **Tutor**, *Istituzioni di Matematica Modulo I*, Scienze Naturali, Università La Sapienza, Rome

Invited Talks

○ KCL/UCL Junior Geometry Seminar, 24/06/2021.

○ Seminario di Natale 2021, Università degli Studi di Milano, 21/12/2021.

○ GAP (Geometry, Algebra, Physics) Seminar, Penn State, 6/09/2022.

○ Algebraic Geometry seminar, University of Glasgow, 28/03/2023.

○ Seminari di Algebra e Geometria Algebrica, Università di Torino, 06/06/2023.

○ Talk in the conference "Giornate di Geometria Algebrica e Argomenti Correlati XVI", Hotel San Michele, Cetraro (Università della Calabria), 12/09/2023.

○ Geometry and Analysis Seminar, University of Oxford, 27/11/2023.

○ Algebra seminar, University of Edinburgh, 20/03/2024.

○ Talk in Séminaire ALPE, University of Toulouse, 11/06/2024.

○ Talk in GAP (Séminaire Itinérant de Géométrie et Physique) Edition XIX: Moduli spaces and higher structures, La Sapienza, 12/09/2024.

○ GAP (Geometry, Algebra, Physics) Seminar, Penn State, 3/12/2024.

○ Uppsala Algebra Seminar, 25/03/2025.

○ Talk in workshop "Some like it hot, Geometry & Topology in Rome", INdAM, July 2025.

○ Talk in "Workshop on Derived Categories, Noncommutative Geometry and Deformation Theory", Hotel San Michele, Cetraro, July 2025

Grants

○ Winner of a grant "Progetti di Avvio alla Ricerca - tipo 1", 2020,
Università di Roma La Sapienza, for the project "Mappa di semiregolarità e morfismi L-infinito".

○ Winner of a grant "Progetti di Avvio alla Ricerca - tipo 1", 2021,
Università di Roma La Sapienza, for the project "Sollevamenti L-infinito delle componenti superiori della mappa di semiregolarità".

Organisation of conferences and seminars

May 2024 **Co-organiser (with T. De Deyn, I. Kaur, M. Pressland, F. Rota) of the workshop Algebraic Geometry Days in Glasgow, 8-9 May 2024**, *University of Glasgow*

Sep. 2024 – **Organiser of the Algebraic Geometry Seminar**, *University of Glasgow*
June 2025

Scientific visits

15/08/2022 – **Pennsylvania State University**, *short visit to Ping Xu.*
10/09/2022

2/12/2024 – **Pennsylvania State University**, *short visit to Ping Xu.*
13/12/2024

Reviews

Oct. 2022 – **Reviewer for Mathematical Reviews**
now

Oct. 2023 – **Reviewer for ZBMath**
now

Languages

- **Italian:** native
- **English:** advanced
- **German:** basic