## Emma Lepri

#### Personal information

Nationality: Italian

#### Current position

2023-now

September Research associate, University of Glasgow, Glasgow, Mentor: Michael Wemyss.

#### Education

2023

November **Ph.D.** in Mathematics, Università la Sapienza, Rome, Tutor: Domenico Fiorenza, Supervisor: Marco Manetti, thesis title: " $L_{\infty}$  morphisms and semiregularity".

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

September Bachelor Degree in Mathematics, Università la Sapienza, Rome, 110/110 cum laude, 2014 - July 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

- o 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
- $\circ$  E. Lepri, M. Manetti, Connections and  $L_{\infty}$  liftings of semiregularity maps, Journal of Geometry and Physics 168 (2021) 104303, DOI: 10.1016/j.geomphys.2021.104303, arXiv:2102.05016
- o E. Lepri, Cyclic forms on DG-Lie algebroids and semiregularity, Rend. Sem. Mat. Univ. Padova. 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
- $\circ$  R. Bandiera, E. Lepri, M. Manetti,  $L_{\infty}$  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
- o R. Bandiera, E. Lepri, M. Manetti, Semiregularity maps and deformations of modules over Lie algebroids, accepted for publication in Pure Appl. Math. Q, January 2023, arXiv:2208.00694

#### Teaching Experiences

- 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

- o KCL/UCL Junior Geometry Seminar, "An L-infinity lifting of the first component of the semiregularity map", 24/06/2021.
- Seminario di Natale 2021, Università degli Studi di Milano, "L-infinity liftings of semiregularity maps", 21/12/2021.
- o GAP (Geometry, Algebra, Physics) Seminar, Penn State, "L-infinity liftings of semiregularity maps and deformations", 6/09/2022.
- Algebraic Geometry seminar, University of Glasgow, "L-infinity liftings of semiregularity maps and deformations", 28/03/2023.
- o Seminari di Algebra e Geometria Algebrica, Università di Torino, "L-infinity liftings of semiregularity maps and deformations", 06/06/2023.
- O Talk in the conference "Giornate di Geometria Algebrica e Argomenti Correlati XVI", Hotel San Michele, Cetraro (Università della Calabria), "Sollevamenti L-infinito di mappe di semiregolarità e deformazioni", 12/09/2023.
- Geometry and Analysis Seminar, University of Oxford, "L-infinity liftings of semiregularity maps and deformations", 27/11/2023.
- Algebra seminar, University of Edinburgh, "L-infinity liftings of semiregularity maps and deformations", 20/03/2024.

#### 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".
- O 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".

#### Conferences and summer schools

- Workshop "Young Perspectives in Deformation Theory", Politecnico di Torino, November 2018.
- o "Aeneas Conference: Migrating Algebraic Geometry", Roma Tre, December 2018.
- o "Geometry in Pairs", Roma Tre, December 2019.
- o Workshop "Higher Structures and Operadic Calculus", CRM Barcelona, June 2021.
- O Hausdorff School: "Hyperkähler Geometry", Hausdorff Institut Bonn, September 2021.
- o Workshop "Moduli spaces and hyper-Kähler varieties", La Sapienza, September 2021.
- o Seminario di Natale 2021, Università degli Studi di Milano, December 2021.
- o GAel XXIX, Laboratoire de Mathématiques d'Orsay, May 2022.
- o CIRM school "Moduli Spaces and Stability Conditions", Levico Terme, June 2022.
- o "Hyperkähler varieties and related topics", La Sapienza, September 2022.
- o "Giornate di Geometria Algebrica e Argomenti Correlati XVI", Hotel San Michele, Cetraro (Università della Calabria), September 2023.

#### Other

15/08/2022-10/09/2022

15/08/2022- Visiting, Pennsylvania State University, under the supervision of Ping Xu.

October 2022-now

October Reviewer for Mathematical Reviews

# October Reviewer for ZBMath 2023-now

### Languages

Italian: native English: advanced German: basic