Ivan Di Liberti

Contact

addr Institute of Mathematics Czech Academy of Sciences Žitná 25, Prague.

mail diliberti.math@gmail.com

web diliberti.github.io

Current Position

Postdoc, Czech Academy of Sciences, Prague, since Jul 2020.

Grant: GX20-31529X.

Coordinator: prof. Wiesław Kubiś.

Education

2020 Ph.D. in Mathematics, Masaryk University, Brno, since Feb 2017.

Dissertation: The Scott adjunction - Towards formal model theory. Under evaluation.

Advisor: prof. Jiří Rosický.

Expected defence: mid September 2020. 2016 **MSc in Mathematics**, *Università di Pisa*.

Dissertation: A survey on Barr's Theorem.

Advisors: Prof. Nicola Gambino, prof. Alessandro Berarducci.

2015 BSc in Mathematics, Università di Pisa.

Dissertation: Definable groups in o-minimal structures.

Advisor: Prof. Alessandro Berarducci.

Research

Publications

- 2020 **Gabriel-Ulmer duality for topoi and its relation with site presentations**, j/w Julia Ramos Gonzalez, Accepted by Applied Categorical Structures.
- 2020 **Codensity: Isbell duality, pro-objects, compactness and accessibility**, Journal of Pure and Applied Algebra, doi:10.1016/j.jpaa.2020.106379.
- 2019 Weak saturation and weak amalgamation property, Journal of Symbolic Logic, doi:10.1017/jsl.2019.45.
- 2018 **Homotopical Algebra is not concrete**, j/w F. Loregian, J. Homotopy Relat. Struct. (2018) 13: 673.

Preprints

- 2019 On the unicity of formal category theories, j/w F. Loregian.
- 2018 Accessibility and Presentability in 2-categories, j/w F. Loregian.

Teaching & Supervision

Teaching: MUNI

- 2020 **Topology**, Teaching assistant.
- 2019 **Topics in Category Theory**, *Instructor (shared with John Bourke)*.
- 2019 **Topology**, Teaching assistant.
- 2018 **Topics in Category Theory**, *Instructor (shared with John Bourke)*.
- 2017 Rings and Modules, Teaching assistant.

Teaching: UniPi

2016 **Tutor**, I have tutored courses of first two years, especially Algebra courses.

Thesis Reader: MUNI

- 2019 Yuriy Dupyn, Algebraic Structures, bachelor thesis.
- 2018 Jan Jurka, Locally presentable categories, bachelor thesis.
- 2018 Vladislav Demenchuk, Elements of nonstandard analysis, bachelor thesis.

Supervisor: MUNI

2020 Vít Jelínek, bachelor thesis in CS, in progress.

Service

MathOverflow.

- 2020 ItaCaFest, Program commettee.
- 2020 Masaryk University Algebra Webinar, Masaryk University, Main organizer.
- 2019 ItaCa I, Università di Milano, Program commettee.
- 2018 PSSL103, Masaryk University, Organizer.