

Marta Fiori Carones

Curriculum Vitae

PERSONAL DATA

Birth: 5/12/1991, Italy
Nationality: Italian
Web page: <https://martafioricarones.github.io>
Email: marta.fioricarones@outlook.it
Address: Sobolev Institute of Mathematics
4 Acad. Koptyug Avenue
630090 Novosibirsk, Russia

CURRENT POSITION

Postdoctoral fellow at the Sobolev Institute of Mathematics, Novosibirsk

AREAS OF INTERESTS

Mathematical logic, foundations of mathematics, philosophy of mathematics, reverse mathematics, computability theory

EDUCATION

- 2016-2020 PhD in Mathematics, Università degli Studi di Udine,
Dissertation: “Filling cages. Reverse mathematics and combinatorial principles”
Supervisor: Prof. Alberto Marcone
- 2014-2016 MA (with distinction) in Philosophy, Università degli Studi di Milano
Dissertation: “Il teorema di Tennenbaum e i modelli dell’aritmetica” (Tennenbaum’s Theorem and Models of Arithmetic)
Advisors: Prof. Silvio Bozzi, Prof. Edoardo Ballo
- 2010-2014 BA (with distinction) in Philosophy, Università degli Studi di Milano
Dissertation: “Oggetti e strutture: diverse prospettive sui numeri naturali” (Structures and Objects: different perspectives on natural numbers)
Advisor: Prof. Edoardo Ballo

EMPLOYMENT

- 10.2021-12.2023 Postdoctoral fellow
Sobolev institute of mathematics, Siberian Branch of the
Russian Academy of Sciences, Novosibirsk
- 09.2020-08.2021 Postdoctoral fellow
Institute of Mathematics, University of Warsaw
- 01-06.2020 Research assistant
Munich Center for Mathematical Philosophy, LMU Munich

PUBLICATIONS

- 2023 Marta Fiori-Carones, Leszek Aleksander Kołodziejczyk, Tin Lok Wong, Keita Yokoyama, An isomorphism theorem for models of Weak König's Lemma without primitive recursion, *Journal of the European Mathematical Society* (accepted)
- 2023 Marta Fiori-Carones, Variations of statement, variations of strength. The case of the Rival and Sands theorems (submitted)
- 2022 Marta Fiori-Carones, Alberto Marcone, Paul Shafer, Giovanni Soldà, (Extra)ordinary equivalences with the Ascending/Descending Sequence principle, *Journal of Symbolic Logic* (published online)
- 2022 Nikolay Bazhenov, Marta Fiori-Carones, Lu Liu, Alexander Melnikov, *Primitive recursive reverse mathematics* (submitted)
- 2022 Marta Fiori-Carones, Alberto Marcone, Uniquely orderable interval graphs, *Discrete Mathematics*, 345, 112935
- 2022 Marta Fiori-Carones, Paul Shafer, Giovanni Soldà, An inside-outside Ramsey theorem and computability theory, *Transactions of the American Mathematical Society*, 375, pp. 1977-2024
- 2021 Marta Fiori-Carones, Leszek Aleksander Kołodziejczyk, Katarzyna W. Kowalik, Weaker cousins of Ramsey's theorem over a weak base theory, *Annals of Pure and Applied Logic* 172, pp. 103028
- 2021 Marta Fiori-Carones, Alberto Marcone, To reorient is easier than to orient: an online algorithm to reorient pseudo-transitive graphs, *Computability* 10, pp. 215-233
- Nikolay Bazhenov, Marta Fiori-Carones, Manat Mustafa, The strength of the existence of Friedberg, positive and minimal numberings (in preparation)
 - Marta Fiori-Carones, Pawel Pawlowski, Determinizing non-deterministic semantics (in preparation)
 - Marta Fiori-Carones, Pawel Pawlowski, Translating non-deterministic finitely many-valued logics into a modal semantics (in preparation)
 - Marta Fiori-Carones, Pawel Pawlowski, Functional completeness of non-deterministic semantics (in preparation)
 - Marianna Antonutti Marfori, Marta Fiori-Carones, Intensional aspects of computability theory (in preparation)

INVITED TALKS

- 07.2023 *Where does intensionality lie in computability?*
Panel ‘New Directions in Philosophy of Computability’, 17th International Congress on Logic, Methodology and Philosophy of Science and Technology, Buenos Aires
- 05.2023 *The strength of the existence of positive, Friedberg and minimal numberings*
Computability and Combinatorics 2023, University of Connecticut, hybrid
- 02.2023 *Different base theories for reverse mathematics*
Mathematical Indispensability in Philosophy workshop, Munich Center for Mathematical Philosophy, hybrid
- 10.2022 *Primitive recursive reverse mathematics*
Workshop on Digitalization and Computable Models, online
- 06.2022 *A theorem of Rival and Sands in the Weihrauch lattice*
Computing in topological structures, Sirius mathematical Center, Sochi
- 06.2022 *The strength of some consequences of RT_2^2 over RCA_0^**
Steklov Institute of Mathematics, Moscow
- 06.2022 *When is unbounded search necessary?*
Leeds Computability Days, online
- 04.2022 *The strength of a family of Ramsey’s like statements*
Seminar on computability theory, Kazan Federal university
- 10.2021 *Different behaviour of CRT_2^2 and COH over RCA_0^**
Università di Udine
- 09.2021 *The epistemological reading of reverse mathematics through an example*
Workshop in Philosophy of Computing, Politechnika Warszawska, online
- 07.2021 *An algorithm for reorienting infinite pseudo-transitive graphs*
Computability and Complexity in Analysis, Universität der Bundeswehr München, online
- 05.2021 *A characterisation theorem for uniquely orderable interval graphs*
filoLOGICA, Università degli Studi di Bologna, online
- 02.2021 *The strength of ADS and CAC in the absence of Σ_1^0 -induction*
South Eastern Logic Symposium 2021, online
- 05.2020 *A theorem from Rival and Sands and reverse mathematics*
Online seminar on Computability Theory and Applications
- 03.2020 *(Extra)ordinary equivalences with ADS*
ASL North American Meeting, special session on reverse mathematics and computability theory of Ramsey-theoretic principles (cancelled)

CONTRIBUTED TALKS

- 09.2023 *Una comparazione della comparazione tra teoremi*
Congresso dell’Unione Matematica Italiana, Pisa
- 06.2023 *Conservative translations for non-deterministic semantics*
Semantical and Computational Aspects of Non-Classical Logics 2023, Steklov Mathematical Institute, Moscow
- 09.2022 *Ramsey-theoretic statements over a weaker base theory*
XXVII Incontro di Logica AILA, Caserta
- 07.2021 *Measuring the strength of Ramsey-theoretic statements over RCA_0^**
Logic Colloquium 2021, Poznan, online
- 07.2021 *Transitive reorientations of pseudo-transitive infinite graphs*
Computability in Europe 2021, Ghent, online
- 05.2020 *Unique orderability of infinite interval graphs and reverse mathematics*
Logic seminars, Università di Udine, online

- 12.2019 *An on-line algorithm to reorient pseudo-transitive graphs*
informal Formal Methods Meetings, Università di Udine
- 08.2019 *A theorem of ordinary mathematics equivalent to ADS*
16th International Congress on Logic, Methodology and Philosophy of Science and
Technology, Prague
- 07.2019 *Reverse mathematics of a theorem about posets of finite width*
Computability in Europe 2019, Durham
- 03.2019 *Catching the strength of a theorem about chains with nice properties in posets of
finite width*
Proofs, Constructions, and Computations Seminar, University of Leeds
- 08.2018 *The reverse mathematics of a theorem about subgraphs with nice properties*
Computability in Europe 2018, Kiel
- 07.2018 *The strength of a theorem about subgraphs with nice properties*
Logic Colloquium 2018, Udine
- 02.2018 *On the adjacency of vertices to the vertices of an infinite subgraph*
Postgraduate Logic Seminar, University of Leeds
- 01.2018 *Interval graphs and reverse mathematics*
Proofs, Constructions, and Computations Seminar, University of Leeds
- 10.2017 *Interval graphs and reverse mathematics*
Forth Symposium on the Foundations of Mathematics, Munich

RESEARCH VISITS

- 03.2023 Department of Mathematics, Nazarbayev University, Astana
- 06.2022 Steklov Institute of Mathematics, Moscow
- 05.2022 Department of Mathematics, Nazarbayev University, Astana
- 03.2022 Lobachevsky Institute of Mathematics and Mechanic, Kazan Federal University
- 09.2021 Dipartimento di scienze matematiche, informatiche e fisiche, Università di Udine
- 01-05.2019 School of Mathematics, University of Leeds
- 01-03.2018 School of Mathematics, University of Leeds

TEACHING EXPERIENCES

- 02-03.2022 *Foundation of arithmetic from a historical perspective*
Mini course, Novosibirsk State University
- 11-12.2021 *A short introduction to reverse mathematics*
Mini course at Computability theory seminars, Sobolev Institute of Mathematics
- 05-06.2019 Teaching assistant for the course of Linear Algebra,
BA degree in Internet of things and big data, Università di Udine, 12 hours
- 10-11.2018 Teaching assistant for the course of Principles of Mathematics,
BA degree in Internet of things and big data, Università di Udine, 12 hours
- 05-06.2018 Teaching assistant for the course of Linear Algebra,
BA degree in Internet of things and big data, Università di Udine, 12 hours
- 10-11.2017 Teaching assistant for the course of Principles of Mathematics,
BA degree in Internet of things and big data, Università di Udine, 12 hours

MISCELLANEOUS

- 2023 *Introduzione alla teoria della computabilità*, Back-and-forth-lectures, Università
degli studi di Torino

- 2022 Organiser (with Ludovic Patey) of the special session “Reverse mathematics and combinatorics” at Logic Colloquium 2022
- 2021 *How to keep a child extremely busy with crayons and paper*
Filkina Medal Award, Mathematical Center in Akademgorodok (Novosibirsk State University)
- 2018 Collector for Report of Dagstuhl Seminar ”Measuring the Complexity of Computational Content: From Combinatorial Problems to Analysis”
- 2018 Member of local organizing committee of Logic Colloquium 2018

GRANTS

- 2019 ASL, travel grant for Logic Colloquium 2019, Prague
- 2019 ASL, travel grant for Computability in Europe 2019, Durham
- 2018 Women in Computability, travel grant for Computability in Europe 2018, Kiel
- 2018 ASL, travel grant for Computability in Europe 2018, Kiel
- 2018 National University of Singapore, Graduate Summer School in Logic organised by IMS (Institute for Mathematical Sciences)
- 2018 ASL, travel grant for the conference ”Ramsey’s theory and computability”, Rome
- 2017 AILA, XXVI Incontro AILA (Italian Association for Logic and Applications)
- 2017 ASL, travel grant for Logic Colloquium 2017, Stockholm
- 2017 Scandinavian Logic Society, Third Nordic Logic Summer School, Stockholm
- 2015 AILA, AILA Summer School of Logic
- 2-7.2015 Erasmus Placement, Department of Logic, History and Philosophy of Science, Universitat de Barcelona
- 2013 AILA, AILA Summer School of Logic

SUMMER SCHOOLS

- 2018 IMS Graduate Summer School in Logic, National University of Singapore
- 2017 Third Nordic Logic Summer School, University of Stockholm
- 2015 Logic Summer School organized by AILA (Italian Association for Logic and Applications)
- 2014 Logic Summer School organized by AILA
- 2013 Logic Summer School organized by AILA
- 2012 International Summer School in Cognitive Sciences and Semantics, University of Latvia

AFFILIATIONS

Associazione Italiana di Logica e sue Applicazioni, AILA
 Association for Symbolic Logic, ASL
 Computability in Europe, CiE

LANGUAGES

Italian Mother tongue
 English Fluent
 French Good
 Russian Good
 Spanish Good