

Marcel Dall'Agnol

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Education

Ph.D. in Computer Science

UNIVERSITY OF WARWICK

Coventry, UK

Oct. 2019 - Sep. 2023 (expected)

Master's in Mathematics

INSTITUTO NACIONAL DE MATEMÁTICA PURA E APLICADA (IMPA)

Rio de Janeiro, Brazil

Mar. 2017 - Feb. 2019

Undergraduate exchange program in Computer Science

UNIVERSITY OF CALIFORNIA, SAN DIEGO (UCSD)

San Diego, USA

Jan. 2012 - Dec. 2012

B.S. in Mechatronics Engineering (with certificate of Emphasis in Computer Science)

UNIVERSIDADE DE SÃO PAULO (USP)

São Carlos, Brazil

Jan. 2009 - Dec. 2014

Research Interests

Sublinear algorithms, complexity theory, interactive proofs and quantum computation.

Publications

Quantum Proofs of Proximity

QUANTUM, 2022 (with T. Gur, S. R. Moulik and J. Thaler)

A Structural Theorem for Local Algorithms with Applications to Coding, Testing, and Privacy

SODA 2021 (with T. Gur and O. Lachish)

MotionDraw: A Tool for Enhancing Art and Performance Using Kinect

CHI 2013 (with D. G. Rodrigues, E. Grenader, F. Nos, T. Hansen and N. Weibel)

Manuscripts

Streaming Zero-Knowledge Proofs

(with G. Cormode, T. Gur and C. Hickey)

On the Necessity of Collapsing for Post-Quantum and Quantum Commitments

(with N. Spooner)

Internships

COMPSEC Lab - EPFL

VISITING DOCTORAL STUDENT

Hosted by Alessandro Chiesa, took part in a research project on cryptographic applications of quantum computing.

Lausanne, Switzerland

Jul. 2022 - Sep. 2022

Robotics Institute - Carnegie Mellon University

SUMMER INTERN

Developed and deployed a web service for precision enhancement of GPS data collected by an autonomous vehicle.

Pittsburgh, USA

Jun. 2012 - Sep. 2012

Physics Institute - Universidade de São Paulo

SCIENTIFIC INITIATION

Designed, built and installed a temperature monitor for a Cesium atomic clock. Supported by a scholarship from CNPq.

São Carlos, Brazil

Aug. 2010 - Jul. 2011

Talks

On the Necessity of Collapsing for Post-Quantum and Quantum Commitments

QCW 2022

Virtual
Dec. 2022 (upcoming)

Quantum Proofs of Proximity

TQC 2021

Virtual
Jul. 2021

A Structural Theorem for Local Algorithms with Applications to Coding, Testing, and Privacy

HALG 2022

London, UK
Jul. 2022

Teaching

University of Warwick

SENIOR GRADUATE TEACHING ASSISTANT

Coventry, UK
Oct. 2019 - present

Assisted with teaching and marking in the following undergraduate modules: *Algorithms* (2020, 2021), *Complexity of Algorithms* (2019, 2020, 2021, 2022), *Logic and Verification* (2020) and *Quantum Computing* (2020, 2021).

MSRI

TEACHING ASSISTANT

Virtual
Jul. 2021 - Aug. 2021

Collaborated with the organisation and led problem sessions at the *Summer Graduate School on Foundations and Frontiers of Probabilistic Proofs*.

IMPA

TEACHING ASSISTANT

Rio de Janeiro, Brazil
Mar. 2019 - Jun. 2019

Assisted with teaching and marking in the first-year master's course *Algebra I*.

Projeto Âncora

EDUCATOR

Cotia, Brazil
Aug. 2014 - Jan. 2017

- Tutored groups of students in primary education with personalized learning;
- Oriented student projects and work groups on a variety of topics, including computer maintenance and informatics, bullying and harassment prevention and culinary studies;
- Assisted in the development of a web platform used to share and catalog students' and educators' work;
- Oriented study groups in mathematics;
- Gave talks and courses on the school's pedagogical approach.

Emancipa

TEACHER

São Carlos, Brazil
Apr. 2013 - Jul. 2014

Taught math and physics in a volunteer-run, free of cost preparation program for the Brazilian undergraduate admission exams.

USP

TEACHING ASSISTANT

São Carlos, Brazil
Feb. 2013 - Nov. 2013

Assisted first-year undergraduate students in two courses: *Analytic Geometry* and *Linear Algebra*.

Paper reviews

IEEE Transactions on Information Theory (2020), CCC (2021), FOCS (2021, 2022), STOC (2021), ITCS (2020, 2021), RANDOM (2021).

Honours and Awards

- 2021 **Department of Computer Science undergraduate teaching award**, University of Warwick
- 2019 **Centre for Doctoral Training postgraduate studentship**, University of Warwick
- 2019 **CIMPA research school travel award**, IMPA and CIMPA
- 2017 **Master's scholarship**, CNPq
- 2012 **Science Without Borders undergraduate exchange scholarship**, CAPES

Skills

Languages Portuguese and English (fluent), Spanish (intermediate), German (basic)

Programming Python, C/C++, Ruby/Rails, Matlab/Octave, LaTeX

Conferences/Events Attended

Workshop on *Efficient Probabilistic Proofs*

Bertinoro, Italy

Jul. 2022

BCTCS 2022

Swansea, UK

Apr. 2022

FOCS 2020

Virtual

Nov. 2020

CCC 2020

Virtual

Jul. 2020

STOC 2020

Virtual

Jul. 2020

AlgoUK 2019

Coventry, UK

Sep. 2019

CIMPA Research School on *Elliptic Curves: Arithmetic and Computation*

Montevideo, Uruguay

Feb. 2019

2018 International Congress of Mathematicians

Rio de Janeiro, Brazil

Aug. 2018

Latin American Week on Coding and Information

Campinas, Brazil

Jul. 2018

30th and 31st Brazilian Colloquia of Mathematics

Rio de Janeiro, Brazil

Jul. 2015 and Jul. 2017

Additional Certificates/Qualifications

2016 **Licentiate in Mathematics**, Certification to teach at primary and secondary levels (by Claretiano)

2013 **OnDaF**, German CEFR Level B1

2007 **CPE**, English CEFR Level C2