

# Fabio Tonini

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homepage — linkedin — github — tonini.work@gmail.com

## EDUCATION

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- **Italian National Scientific Abilitation** as University Professor 2021
- **Scuola Normale Superiore of Pisa** Pisa, Italy  
*PhD in Mathematics. Advisor: Angelo Vistoli* 2009-2013
- **University of Pisa** Pisa, Italy  
*Master's Degree in Mathematics, 110/110 cum laude* 2006-2008  
*Bachelor's Degree in Mathematics, 110/110 cum laude* 2003-2006

## SKILLS

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- python, bash
- pandas, numpy, sphinx, git, L<sup>A</sup>T<sub>E</sub>X, linux
- Advanced Mathematics (Linear Algebra, Topology, Abstract Algebra, Statistics, Probability)

## EXPERIENCE

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- **University of Florence** Florence, Italy  
*Post-doctoral researcher in Math* 2018 - 2021
- **Freie University** Berlin, Germany  
*Post-doctoral researcher in Math* 2015 - 2018
- **Humboldt University** Berlin, Germany  
*Post-doctoral researcher in Math* 2013 - 2015

## ACADEMIC EXPERIENCE

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- Published 15 research articles in top peer-reviewed mathematical journals, as an independent researcher in pure Math. (See Publications). The main area of investigation is algebraic geometry, a modern fusion between abstract algebra and classical geometry. My main accomplishment has been the invention of a mathematical structure called the "local fundamental group". The local fundamental group provides a novel link between the 19th century field of mathematics called Galois theory, and the modern theory of stacks and orbifolds [Link to the paper](#)
- Delivered 16 research talks at conferences and institutions in various countries, including: Italy, France, Germany, Sweden, Hong Kong, India, Japan, Australia.
- Professor for seven courses across six semesters in the University of Florence: Basic math (Linear Algebra, Calculus, Statistics, Probability) in the Departments of Natural and Pharmaceutical sciences; Advanced Geometry in the Math Department.

## PERSONAL PROJECTS

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- **extremals (Python)** Set of tools to inspect pandas dataframes looking for "extremals rows", that is rows "numerically different" from other ones.
- **Commu (Python)** Graphical interface tool to easily draw mathematical diagrams in L<sup>A</sup>T<sub>E</sub>X.
- **Minesweeping (Python)** Terminal version of the classic game.
- **Playradio (Bash)** Listen or record webradios.

## AWARDS

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- Italian grant PRIN for research, traveling and other expenses (€220k total) 2021
- Two year Junior visiting position at Centro De Giorgi in Pisa (€65k) 2018
- One year scholarship at Scuola Normale Superiore of Pisa (€20k) 2012
- Student of Scuola Normale Superiore of Pisa with final diploma (6 awarded across Italy in 2006) 2006-2008
- Indam scholarship during my undergraduate studies (50 awarded across Italy in 2003) (€20k) 2003-2006

## HOBBIES AND INTERESTS

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Scuba diving and photography, especially together as underwater photography. I actively participate in photography contests. I ranked 1<sup>st</sup> in "52<sup>nd</sup> Natale Subacqueo di Amalfi" and "12<sup>th</sup> Trofeo Mosti Luciano" (category wide). Some videos: South Africa, Mexico. My instagram account: @jacobbbb84