

# Laguzzi Giorgio

## CURRICULUM VITAE

### PERSONAL INFORMATIONS

SURNAME	LAGUZZI
NAME	GIORGIO
DATE OF BIRTH	06/11/84
INSTITUTION	ALBERT-LUDWIGS-UNIVERSITAET FREIBURG, MATHEMATISCHE INSTITUT
OFFICIALWEB-PAGE	<a href="http://home.mathematik.uni-freiburg.de/giorgio/index.html">HTTP://HOME.MATHEMATIK.UNI-FREIBURG.DE/GIORGIO/INDEX.HTML</a>

### Current position and employment history

- Assistant Professor (akademischer Rat) at the University of Freiburg, in the logic group led by Heike Mildenberger and Martin Amador-Pizarro, October 2014 - present.
- Post-doctoral researcher (wissenschaftlicher Mitarbeiter) at the University of Hamburg, in the logic group led by Benedikt Loewe, October 2013 - September 2014.
- Post-doctoral researcher (wissenschaftlicher Mitarbeiter) at the University of Freiburg, October 2012 - September 2013.
- Doctoral student at the Kurt Goedel Research Center for Mathematical Logic, under the supervision of Sy David Friedman, October 2008 - July 2012, FWF grant (Austrian Science Fund), project reference number: P22430-N13.

### Education and academic degrees

- Abilitazione Scientifica Nazionale (Italian habilitation as associate professor), settore concorsuale MAT 01/A1, 08.07.2020.
- German Habilitation, University of Freiburg, 16.07.2020.
- PhD, University of Vienna, Kurt Goedel Research Center, 04.06.2012.  
Thesis: ``Arboreal forcing notions and regularity properties of the real line".  
Supervisor: Prof. Sy David Friedman.  
grade: with Distinction.
- Master degree in Mathematics, Universita` degli Studi di Torino, 01.10.2008.  
Thesis: ``Lebesgue misurabilita` e cardinali inaccessibili".  
Advisor: Prof. Alessandro Andretta.  
grade: 110/110 e lode (con menzione speciale).

- Bachelor degree in Mathematics, Università del Piemonte Orientale, 29.06.2006.  
Thesis: “Teoremi classici di convergenza”.  
Advisor: Prof. Fabio Rapallo.  
Grade: 110/110 e lode.

### AWARDS

Winner of “Paolo Gentilini Prize 2019”, awarded by AILA (Associazione Italiana di Logica e sue Applicazioni) to a young researcher in the research field of mathematical logic.

### RESEARCH ACTIVITY

#### Publications (and paper submitted)

1. *Arboreal forcing notions and regularity properties of the real line*, PhD thesis, University of Vienna, April 2012.
2. *On the separation of regularity properties of the reals*, Archive for Mathematical Logic (2014), Volume 53, Issue 7-8, pp 31-747, 2014.
3. *Some considerations on amoeba forcing notions*, Archive for Mathematical Logic (2014), Volume 53, Issue 5-6, pp 487-502, 2014.
4. *Generalized Silver and Miller measurability*, Mathematical Logic Quarterly (2015), Volume 61, Issue 1-2, pp 91-102, 2015.
5. *Full-splitting Miller trees and infinitely often equal reals*, (joint with Yurii Khomskii), Annals of Pure and Applied Logic, 168, no. 8, 1491–1506, 2017.
6. *Questions on generalized Baire spaces*, (joint with Yurii Khomskii, Benedikt Loewe e Ilya Sharankou), Mathematical Logic Quarterly, Volume 62, Issue 4-5, 2016.
7. *A null ideal for inaccessible*, (joint with Sy Friedman), Archive for Mathematical Logic, Volume 56, Issue 5-6, pp 691-697, 2017.
8. *Uncountable trees and Cohen kappa-reals*, Journal of Symbolic Logic, Volume 84, Issue 3, pp. 877-894, 2019.
9. *More on trees and Cohen reals* (joint with Brendan Stuber-Rousselle), Mathematical Logic Quarterly, Volume 66, Issue 2, pg. 173-181, 2020.
10. *On the representation and construction of social welfare orders*, (joint with Ram S. Dubey and Francesco Ruscitti), Mathematical Social Sciences, Volume 107, pp. 17-22, 2020.

11. *Social welfare relations and irregular sets*, submitted.
12. *On splitting trees*, (joint with Heike Mildenerger and Brendan Stuber-Rousselle), submitted.
13. *On non-constructive nature of social welfare orders* (joint with Ram Sewak Dubey), submitted.
14. *The non-democratic side of regular sets*, submitted.
15. *On social welfare orders satisfying anonymity and asymptotic density-one Pareto*, (joint with Ram S. Dubey and Francesco Ruscitti), submitted.
16. *Laver trees in the generalised Baire space*, (joint with Yurii Khomskii, Marlene Koelbing and Wolfgang Wohofsky), submitted.

### **In preparation**

17. Generalised equity principles, (joint with Ram S. Dubey), in preparation.
18. A consideration on finitely additive measures, in preparation.

### **Invited speaker at conferences and workshops**

1. Generalized Silver measurability, Freiburg Set Theory Workshop, June 2014 .
2. Full splitting Miller trees and ioe reals, DMV 2014 - Set Theory Thematic Session, Poznan, September 2014.
3. A null ideal for inaccessible?, DMV 2015 - Set Theory Thematic Session, Hamburg, September 2015.
4. Trees on uncountables and pure decision, Bonn set theory workshop: generalized Baire space, September 2016.
5. Infinite utility streams and irregular sets, Logic Colloquium, Stockholm, August 2017.
6. kappa-trees and Cohen kappa-reals, Royal Academy Colloquium on Generalized Baire spaces, August 2018.
7. The non-constructive nature of social welfare relations, DMV Annual Meeting 2020 - Mathematical Logic Thematic Session, Chemnitz, September 2020.

### **Other seminars in conferences and workshops as contributed talks**

- Tree forcing and regularity properties, conferenza AILA, Pisa, April 2014 .
- Roslanowski and Spinas dichotomies, Monaco, September 2014.
- Generalized Baire spaces, Welcome home, Torino, December 2014.

- A null ideal for inaccessible, DMV 2015, Set Theory Thematic Session, Hamburg, September 2015.
- Amoeba for uncountables, Welcome home, Torino, December 2015.
- Uncountable trees and Cohen sequences, Workshop on Generalized Baire Spaces, Bonn, September 2016.
- Social welfare relations and descriptive set theory, AILA meeting, Padova, September 2017.
- Kappa trees and Cohen kappa sequences, Workshop on Generalized Baire Spaces, Amsterdam Royal Academy, August 2018.

### **Invited research seminars**

- Arboreal forcing e proprieta` di regolarita`, Universita` di Torino, 05.04.2012.
- Generalised Amoeba forcing and Sigma<sup>2</sup>-measurability, Prague mini-workshop (KGRC),
- Set theory, forcing and real line, Universita` del Piemonte Orientale, 27.03.2013
- Silver without Lebesgue and Miller, Christian-Albrechts-Universitaet Kiel, Seminar zur Logik, 19.11.2013.
- Regularity properties and tree-like forcings in the generalized Cantor space, Christian-Albrechts-Universitaet Kiel, Seminar zur Logik, 21.11.2013.
- Silver versus club-Silver in the generalized Cantor space, Alberts-Ludwig-Universitaet Freiburg, Oberseminar, 18.12.2013.
- Roslanowski and Spinas dichotomies, Universitaet Bonn, Oberseminar, 14.07.2014.
- A null ideal for inaccessible?, University of Bristol, Mathematical Logic seminar, 24.03.2015.
- Amoebas for uncountable cardinals, University of Bonn, Set theory Oberseminar, 22.06.2015.
- Social welfare relations and descriptive set theory, AILA meeting, Padova, September 2017.

### **TEACHING EXPERIENCE**

- Winter semester 2012/2013, Universitaet Freiburg:

assistant to the course "Mathematische Logik fuer Informatiker", given by Prof. Martin Ziegler;

assistant to the seminar "Game theory", given by Dr. Luca Motto Ros.

- Summer semester 2013, Universitaet Freiburg:

assistant to the seminar "Kardinalzahlinvarianten", given by Prof. Heike Mildenerger;

assistant to the course "Descriptive set theory", given by Dr. Luca Motto Ros.

- Winter semester 2013/2014, Universitaet Hamburg:

assistant to the course "Topologie", given by Prof. Janko Latschev;

assistant to the course "Hoehere Analysis", given by Prof. Timo Reis.

- Summer semester 2014, Universitaet Hamburg:

"Descriptive Set Theory", with Dr. Stefan Geschke.

"ML seminar", seminario di teoria degli insiemi.

- Winter semester 2014/2015, Universitaet Freiburg:

course "Set theory of the real line".

- Summer semester 2015, Universitaet Freiburg:

assistant to the course "Mathematische Logik", given by Prof. Martin Ziegler;  
seminar "Cryptography".

- Winter semester 2015-2016:

assistant to the course "Logik fuer Informatiker", given by Prof. Sebastian Goette.

assistant to the course "Mengenlehre", given by Prof. Heike Mildenerger.

- Summer semester 2016:

seminar "Infinite games and regular sets".

assistant to the seminar "Proper und stark proper Forcing", given by Prof. Heike Mildenerger.

- Winter semester 2016-2017:

assistant to the seminar "Massalgebren und die Maharam-Probleme", given by Prof. Heike Mildenerger.

- Summer semester 2017:

seminar "Cryptography".

assistant to the seminar "Spielstrategien", given by Prof. Heike Mildenerger.

- Winter semester 2017/2018:

assistant to the seminar "Metriken auf den Ordinalzahlen" given by Prof. Heike Mildenerger.

assistant to the course "Logik fuer Informatiker", given by Dr. Markus Junker.

- Summer semester 2018:

assistant to the course "Mathematische Logik" given by Prof. Heike Mildenerger.

assistant to the course "Elementargeometrie", given by Prof. Wolfgang Soergel.

- Winter semester 2018/2019

assistant to the seminar "Die Keisler-Ordnung" given by Prof. Heike Mildenerger.

- Summer semester 2019:  
"Infinite games".  
assistant to the course "Rekursionstheorie", given by Prof. Heike Mildenerger.
- Winter semester 2019/2020:  
Course "Infinitary combinatorics".
- Summer semester 2020:  
assistant to the course "Mathematische Logik"  
assistant to the course "Elementargeometrie"

### **ORGANIZATIONAL ACTIVITY**

- Hamburg Set Theory Workshop (co-organizer), February 2014 (with Benedikt Loewe)
- Amsterdam Set Theory Workshop: generalized Baire spaces (co-organizer), November 2014 (with Benedikt Loewe)
- Hamburg Set Theory Workshop: generalized Baire spaces, September 2015 (co-organizer: Wolfgang Wohofsky).

### **Other**

- Referee for Journal of Symbolic Logic.
- Referee for Archive for Mathematical Logic.
- Member of AILA.