

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

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Giacomo Cherubini, 12 Luglio 2021

CURRICULUM VITAE

(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE GLI ELEMENTI CHE IL CANDIDATO RITIENE UTILI AI FINI DELLA VALUTAZIONE.

LE VOCI INSERITE NEL FACSIMILE SONO A TITOLO PURAMENTE ESEMPLIFICATIVO E POSSONO ESSERE SOSTITUITE, MODIFICATE O INTEGRATE)

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	CHERUBINI
NOME	GIACOMO
DATA DI NASCITA	21 LUGLIO 1988

TITOLI

TITOLO DI STUDIO

(indicare la Laurea conseguita inserendo titolo, Ateneo, data di conseguimento, ecc.)

Laurea in MATEMATICA, conseguita presso Università La Sapienza, Roma, Italia.

TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO

(inserire titolo, ente, data di conseguimento, ecc.)

Ph.D. in MATEMATICA conseguito presso University of Copenhagen in data 12/07/2016, decreto di equipollenza allegato alla domanda

CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI

(per ciascun contratto stipulato, inserire università/ente, data di inizio e fine, ecc.)

Max Planck Institute of Mathematics, Bonn, Settembre 2016 - Aprile 2017
Oberwolfach Leibniz Fellow, centro di ricerca a Oberwolfach, Settembre 2017 - Novembre 2017
Assegno di Ricerca INDAM "Ing. Giorgio Schirillo", presso Università di Genova, Dicembre 2017 - Ottobre 2018
Postdoc Position presso Rényi Institute of Mathematics, Budapest, Ungheria, Novembre 2018 - Agosto 2020
Postdoc Position presso Charles University, Praga, Repubblica Ceca, Settembre 2020 - Dicembre 2022

CURRICULUM VITÆ – GIACOMO CHERUBINI – JULY 11, 2021

Personal information

Name: Giacomo Cherubini
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Webpage: <https://sites.google.com/site/ggcherubini/>
Current position: Postdoc at Charles University, Prague, CZ.

Employment and education

2020–2022 Postdoc, Charles University, Prague, Czech Republic;
2018–2020 Research fellow, Alfréd Rényi Institute of Mathematics, Budapest, Hungary;
2017–2018 Postdoctoral fellow, University of Genoa, Italy;
fall 2017 Leibniz fellow at MFO, Oberwolfach, Germany;
spring 2017 Research visitor at University of Roma Tre, Rome, Italy;
2016–2017 Research fellow at MPIM, Bonn, Germany;
2013–2016 PhD degree, *Studies in the hyperbolic circle problem*,
supervisor Morten S. Risager, University of Copenhagen;
2010–2012 Master Degree, 110/110 *cum laude*, Università La Sapienza in Rome,
2011–2012 Erasmus program exchange to Université de Paris 6 UPMC, Paris, France;
2007–2010 Bachelor Degree, 110/110 *cum laude*, Università La Sapienza in Rome,

Publications and preprints

- 2020 *Cyclic polytope of the simplest cubic fields*, G. Cherubini and P. Yatsyna, preprint (arxiv: <https://arxiv.org/abs/2011.04326>);
- 2020 *On Kuznetsov-Bykovskii's formula of counting prime geodesics*, G. Cherubini, H. Wu and G. Zábrádi, Math. Z. accepted for publication (preprint at <https://arxiv.org/abs/1901.03824>);
- 2020 *On the variance of the nodal volume of arithmetic random waves*, G. Cherubini and N. Laaksonen, preprint (arxiv: <https://arxiv.org/abs/2007.12143>);
- 2019 *Bykovskii-type theorem for the Picard manifold*, A. Balog, A. Biró, G. Cherubini and N. Laaksonen, Int. Mat. Res. Not. IMRN, published online (<https://academic.oup.com/imrn/advance-article-abstract/doi/10.1093/imrn/rnaa128/5855864?redirectedFrom=fulltext>);
- 2018 *Second Moment of the Prime Geodesic Theorem for $\mathrm{PSL}(2, \mathbb{Z}[i])$* , D. Chatzakos, G. Cherubini and N. Laaksonen, Math. Z. published online (<https://link.springer.com/article/10.1007/s00209-021-02778-8>);
- 2018 *A spectral universality theorem for Maass L-functions*, G. Cherubini and A. Perelli, J. Number Theory **204** (2019), 608–623 (arXiv: <https://arxiv.org/abs/1811.02498>);
- 2017 *Prime geodesic theorem for the 3-dimensional hyperbolic space*, O. Balkanova, D. Chatzakos, G. Cherubini, D. Frolenkov and N. Laaksonen, Trans. Amer. Math. Soc. **372** (2019) no. 8, 5355–5374 (arXiv: <http://arxiv.org/abs/1712.00880>);
- 2017 *Mean square in the prime geodesic theorem*, G. Cherubini and J. Guerreiro, Algebra Number Theory **12** (2018), n. 3, 571–597 (arXiv: <https://arxiv.org/abs/1702.00297>);
- 2016 *Almost periodic functions and hyperbolic counting*, G. Cherubini, Int. J. Number Theory, **14** (2018), no. 9, 2343–2368 (arXiv: <https://arxiv.org/abs/1610.05928>);
- 2015 *On the variance of the error term in the hyperbolic circle problem*, G. Cherubini and M. S. Risager, Rev. Mat. Iberoam. **34** (2018), n. 2, 655–685 (arXiv: <http://arxiv.org/abs/1512.04779>).

Awards

- 2017–2018 Giorgio Schirillo postdoctoral grant, awarded by the Italian National Institute for Advanced Mathematics (INdAM); ranked first with full score 30/30;
- 2013–2016 Doctoral grant, University of Copenhagen, partially funded by a Sapere Aude grant from The Danish Council for Independent Research (Grant-id:0602-02161B);
- 2010–2012 Excellence path, scholarship for master students (10 positions available, full marks admission 30/30), Università La Sapienza in Rome;
- 2007–2010 Excellence path, scholarship for Bachelor students (30 positions available, 8/8 additional courses completed), Università La Sapienza in Rome.

Research Interests

Analytic number theory • exponential sums • L -functions • automorphic forms • spectral theory • trace formulas • lattice point counting • diophantine approximation • irrationality questions • almost periodic functions

Talks

- 2021 *On the variance of the nodal volume of arithmetic random waves*, 8th European Congress of Mathematicians, June 2021;
Prime geodesic theorem over \mathbb{Z} and $\mathbb{Z}[i]$, University of Bordeaux, research seminar, March 2021;
On the variance of the nodal volume of arithmetic random waves, Number Theory Online, online conference, March 2021;
- 2020 *Introduction to the hyperbolic circle problem*, Charles University, number theory seminar, November 2020;
Automorphic methods in number theory, Charles University, number theory seminar, October 2020;
On the Möbius function in short intervals, Rényi Institute of Mathematics, research seminar, April 2020;
- 2019 *Remarks on the Prime geodesic theorem in 2D and 3D*, AnMath2019, conference, Budapest, Hungary;
Effective asymptotic for a sum of class numbers, research seminar, IST, Vienna, Austria;
Spectral Universality of Maass L -functions, number theory seminar, Renyi Institute of Mathematics, Budapest, Hungary;
- 2018 *The prime geodesic theorem for the Picard manifold*, number theory seminar, EPFL, Lausanne, Switzerland;
Universality of zeta and L -functions, number theory seminar, University of Genoa, Italy;
- 2017 *Prime geodesic theorem for the Picard manifold*, INdAM Number Theory Days, Università di Genova;
On the prime geodesic theorem for the Picard manifold, number theory seminar, Indian Institute for Science Education and Research (IISER), Pune, India;
Mean square in the prime geodesic theorem, XXXth Journées Arithmétiques, University of Caen, France;

- 2017 *Exponential sums and hyperbolic counting*, number theory seminar, University of Genoa, Italy;
Number theory and harmonic analysis on hyperbolic space, seminar of young researchers, Università La Sapienza, Rome, Italy;
The prime geodesic theorem, number theory seminar, University of Leiden, The Netherlands;
- 2016 *Mean square of the remainder in the prime geodesic theorem*, Spectral Theory, Automorphic Forms and Arithmetic, University of Copenhagen, Denmark;
Mean square in the prime geodesic theorem, number theory seminar, University of Cologne, Germany;
An Introduction to the circle problem in the hyperbolic plane, number theory seminar, MPI, Bonn, Germany;
Le problème du cercle hyperbolique, Ecole jeunes chercheurs en théorie des nombres, Clermont-Ferrand, France;
On the almost-periodic aspect of the hyperbolic lattice point counting problem, N3 Number Theory Days 4, University of Copenhagen, Denmark;
- 2015 *Error terms in hyperbolic counting*, 29th Journées Arithmétiques, University of Debrecen, Hungary;
- 2014 *What is a Fuchsian group?*, part of the “What is...? Seminar” series of talks, University of Copenhagen;
The Patterson-Sullivan measure, summer school on Apollonian circle packings, Institut Mittag-Leffler, The Royal Swedish Academy of sciences, Stockholm, Sweden;
- 2011 *Topological Dynamics of the geodesic flow on the hyperbolic plane*, seminars on hyperbolic geometry, Università La Sapienza, Rome, Italy.

Conferences and Workshops attended

- June 2021 *8th European Congress of Mathematicians*, Portoroz, Slovenia;
- March 2021 *Number Theory Online*, University La Sapienza, Rome, Italy;
- June 2020 *Online Conference in Automorphic forms*, Rényi Institute, Budapest, Hungary;
- Aug 2019 *First Analysis Mathematica International Conference*, Rényi Institute, Budapest, Hungary;
- July 2019 *Second symposium on analytic number theory*, Cetraro, Italy;
- Apr 2019 *Fifth mini symposium of the Roman Number Theory Association*, University of Roma Tre, Italy;
- Apr 2019 *Analytic Aspects of Automorphic Forms*, Lille, France;
- Feb 2019 *Workshop and winter school on local statistics of point sequences*, Linz, Austria;
- Feb 2019 *Symmetries and Spaces*, inaugural lecture, UCL, London, UK;
- Dec 2018 *Wien-Budapest AG*, joint seminar, Renyi Institute of Mathematics, Budapest, Hungary;
- Nov 2018 *Wien-Budapest AG*, joint seminar, Erwin Schrödinger-Institut, Vienna, Austria;
- Oct 2018 *Third Number Theory Meeting*, conference, University of Torino, Italy;
- June 2018 *L-functions: open problems and current methods*, Hausdorff School, Hausdorff Center for Mathematics, Bonn, Germany;
- June 2018 *Perspectives on the Riemann Hypothesis*, University of Bristol, UK;
- Apr 2018 *Fourth mini symposium of the Roman Number Theory Association*, University of Roma Tre, Italy;

- Dec 2017 *Giornate Indam di Teoria dei Numeri*, conference, University of Genoa, Italy;
- Oct 2017 *Interplay between analysis and number theory for Dirichlet series*, workshop, MFO, Oberwolfach, Germany;
- Sep 2017 *Automorphic forms and arithmetic*, workshop, MFO, Oberwolfach, Germany;
- July 2017 *XXXth Journées Arithmétiques*, University of Caen, France;
- June 2017 *London-Paris number theory seminar*, UCL, London, UK;
- May 2017 *Modular forms are everywhere*, MPI, Bonn, Germany;
- Apr 2017 *The third mini symposium of the Roman Number Theory Association*, Università degli studi Roma Tre, Italy;
- Feb 2017 *The 49th Seminar Aachen-Bonn-Köln-Lille-Siegen on Automorphic Forms*, University of Siegen, Germany;
- Jan 2017 *Atelier PARI/GP 2017*, Institut Camille Jordan, Université Lyon 1;
- Nov 2016 *Spectral Theory, Automorphic forms and Arithmetic*, University of Copenhagen, Denmark;
- June 2016 *Ecole Jeunes Chercheurs en Théorie des Nombres*, Université Blaise Pascal, Clermont-Ferrand, France;
- June 2016 *N3 Number Theory Days 4*, University of Copenhagen, Denmark;
- Mar 2016 *Nordic Congress of Mathematicians*, University of Stockholm and KTH, Stockholm, Sweden;
- Dec 2015 *N3 Number Theory Days 3*, Chalmers University of Technology, Göteborg, Sweden;
- July 2015 *29th Journées Arithmétiques*, University of Debrecen, Hungary;
- June 2015 *N3 Number Theory Days 2*, University of Copenhagen, Denmark;
- May 2015 *Analytic aspects of number theory workshop*, ETH, Zurich, Switzerland;
- Dec 2014 *N3 Number Theory Days 1*, University of Copenhagen, Denmark;
- Oct 2014 *The Rolf Schock Prize symposium in mathematics*, The Royal Swedish Academy of Sciences, Stockholm, Sweden;
- Aug 2014 *Sage Days 61*, University of Copenhagen, Denmark;
- July 2014 *Summer school on Analytic number theory*, IHES, Paris, France;
- June 2014 *Apollonian circle packings summer school*, Institut Mittag-Leffler, The Royal Swedish Academy of sciences, Stockholm, Sweden;
- May 2014 *Workshop on analytic number theory*, University of Turku, Finland;
- July 2013 *Journées Arithmétiques JA 2013*, University of Grenoble, France;
- Apr 2013 *EMS/DMF Joint mathematical weekend*, University of Århus, Denmark.

Teaching experience

- 2021 Algebraic Number Theory, teaching assistant, lecturer Vítězslav Kala, Charles University, Prague;
- 2015 Complex analysis II, teaching assistant, lecturer Anders Södergren, University of Copenhagen;
- 2014 The moments problem and orthogonal polynomials, teaching assistant, lecturer Christian Berg, University of Copenhagen;
- 2013 Cyclotomic fields, teaching assistant, lecturer Dustin Clausen, University of Copenhagen.

Conferences and Seminars organized

- 2021 *Automorphic Forms in Budapest* (upcoming 2021), organized in collaboration with the automorphic group at the Rényi Institute of Mathematics, Budapest, Hungary;
- 2020 *Online Conference in Automorphic Forms*, online conference, June 2-6 2020, organized in collaboration with the automorphic group at the Rényi Institute of Mathematics, Budapest, Hungary;
- 2017 *MFO days – Leibniz fellows communicate*: one week series of lectures given by Leibniz fellows at Oberwolfach; the goal was to promote the interaction among young mathematicians at MFO. Organized in collaboration with Pavlo Yatsyna;
- 2015–2016 *What is..? seminar*: series of seminars, aimed at PhD students, to encourage dissemination of mathematics and interaction among different fields of mathematics. Organized in collaboration with Nick de Kleijn and Maj-Britt Nordfang;
- 2013 *Reading seminar on automorphic forms*: course based on the (second half of the) book “Automorphic Forms” by A. Deitmar; follow up on the course on automorphic forms taught at University of Copenhagen (lecturer M. Risager). Main organizer.

Other research activities

- 2018 Reading seminar, *Universality of L-functions*, Genoa, February 14–28;
- 2017 Research visit to IISER, Pune, India, August 15–28;
- 2017 Research visit to King’s College, London, UK, June 1–8.

Miscellaneous

Languages: Italian (mother tongue), French and English (good), Danish (discrete), German and Spanish (elements);

Softwares and languages: (programming) \LaTeX , C/C++, Pari/GP, Sage, Mathematica.