

# Curriculum Vitae

Fabrizio Bianchi

## Personal information

Date of birth	December 31st, 1989
Nationality	Italian
Address	Dipartimento di Matematica Università di Pisa Largo Bruno Pontecorvo, 5 56127 Pisa (PI), Italy Office 319
Webpage	<a href="https://people.cs.dm.unipi.it/bianchi">https://people.cs.dm.unipi.it/bianchi</a>
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## Expertise and research interests

Holomorphic dynamics, complex analysis and geometry, pluripotential theory, ergodic theory and dynamical systems

## Cursus

### Academic positions

09/2023 -	<b>Professore Associato</b> , Università di Pisa, Italy
01/2019 -	<b>Chargé de recherche CNRS</b> (tenured full time researcher), CNRS, France. On leave since 09/2023.

### Postdoctoral positions

2018 - 2019	<b>Marie Skłodowska-Curie Fellow</b> , Department of Mathematics, Imperial College London, UK.
2016 - 2018	<b>Chapman Fellow</b> , Department of Mathematics, Imperial College London, UK.
	Supervisor/Mentor: Dr Davoud Cheraghi

## Education

2013–2016	PhD student, Institut de Mathématiques de Toulouse and Università di Pisa Thesis <i>Motions of Julia sets and dynamical stability in several complex variables</i> Defended on September 9th, 2016 Supervisors: Prof. François Berteloot and Prof. Marco Abate
2011–2013	Second level Diploma ( <i>Licenza</i> ), Mathematics, Scuola Normale Superiore di Pisa MSc in Mathematics, Università di Pisa Thesis <i>Geodesics for meromorphic connections on Riemann surfaces and dynamics of homogeneous vector fields in several complex variables</i> Defended on July 19th, 2013 Supervisor: Prof. Marco Abate
2008–2011	First level Diploma of Science Class (Mathematics), Scuola Normale Superiore di Pisa Bachelor of Science in Mathematics, Università di Pisa
2003–2008	Secondary school diploma, Liceo Scientifico M.G. Agnesi, Merate (Lecco, Italy).

## Invited talks

### Talks in conferences and workshops

- 2025  
(planned) *Complex Geometry, Complex Analysis and Dynamics*, **CIRM Marseille**, July 7-11  
*From Complex Analysis to Quantization*, **Chern Institute for Mathematics, Tianjin, China**, May 12-16  
*Tangent to the Identity Germs and Affine Surfaces*, **Toulouse** February 10-14
- 2024 *SCV, CR geometry and Dynamics*, **RIMS Kyoto**, November 25-29  
*CR Analysis and Complex Dynamics*, **Leipzig**, September 30 - October 1  
*Complex Analysis and Complex Geometry*, **Hanoi**, Vietnam, August 26-29  
*On Geometric Complexity of Julia Sets-V*, **Bedlewo**, Poland, July 21-26  
*Complex Dynamics and complex geometry*, **Amiens**, June 17-21  
*Parameter spaces in complex dynamics and related topics*, **Pisa**, May 27-31  
*Index Theory and Complex Geometry Part 2*, **Singapore**, April 29 - May 3
- 2023 *Algebraic Geometry, Arithmetic and Dynamics Part 2*, **Singapore**, August 28 - September 1  
*Surfaces affines et germes tangents à l'identité*, **Toulouse**, July 10-13  
*SCV, CR geometry, and Dynamics*, **Nice**, May 30-June 4  
*Dynamics of Hénon Maps: Real, Complex and Beyond*, **Banff**, Canada, April 10-14  
*Complex dynamics: connections to other fields*, University of Warsaw Conference Centre in **Checiny**, Poland, March 27-31  
First ANR PADAWAN meeting, **Orléans**, January 5-6
- 2022 *Complex Geometry, Dynamical Systems and Foliation Theory*, **CIRM Marseille**, October 17-21  
*Complex Geometry and Dynamical Systems*, **Oberwolfach, Germany**, September 4-10  
Simons Symposium *Algebraic, Complex and Arithmetic Dynamics*, **Schloss Elmau in Elmau** (Krün, Germany), August 22-26  
*1st Al-Khorezmi International Conference on Modern problems of Mathematics*, dedicated to the 75th anniversary of Azimbay Sadullaev, **Urgench (Uzbekistan)**, July 25-29  
Final conference ANR FATOU, **Orléans**, June 13-17  
*Adventurous Berkeley Complex Dynamics*, main conference in the MSRI semester *Complex Dynamics: from special families to natural generalizations in one and several variables* May 2-6 (**MSRI, Berkeley**, California, US)
- 2021 *On geometric complexity of Julia sets - III*, **Bedlewo**, Poland, September 27-October 1  
*Index Theory and Complex Geometry: Conference on Complex Analysis and Geometry*, August 16-20 (organized by IMM, **Singapore** - online)
- 2020 *On geometric complexity of Julia sets - II*, August 24-27 (organized by **IMPAN, Poland** - online)  
*First Virtual Conference on Complex Analysis and Complex Geometry*, May 4 - June 14 (**online**)  
*Complex Dynamics*, **CIRM Marseille**, January 27-31
- 2019 *Dynamics and geometry*, **Singapore**, November 20  
*Dynamics, Equations and Applications*, **Krakow**, Poland, September 16-20  
XX Congresso Unione Matematica Italiana, Complex Geometry section, **Pavia**, September 2-7  
*Topics in Complex Dynamics 2019*, **Barcelona**, March 25-29  
LMS Scheme 3 Network in Holomorphic Dynamics meeting, **Nottingham**, January 14
- 2018 Journée de dynamique complexe, **Nice**, December 18  
Final conference ANR LAMBDA, **Toulouse**, May 28-June 1  
*Varietà reali e complesse: geometria, topologia e analisi armonica*, **Pisa**, February 1-3
- 2017 *Holomorphic Dynamics*, **RIMS, Kyoto**, December 11-15  
*Topics in Complex Dynamics 2017*, **Barcelona**, October 2-6  
LMS Scheme 3 Network *Holomorphic Dynamic* meeting, **Imperial College, London**, March 22  
*Aspects of dynamical systems*, **Imperial College, London**, March 16-18
- 2016 *Progressi Recenti in Geometria Reale e Complessa - X*, **Levico**, October 8-11  
Workshop *Residues and dynamics*, held in **Pisa**, September 12-13  
Workshop *Dynamical systems in logic, complex analysis and ergodic theory*, **Pisa**, February 8-9

- 2015 | *Topics in Complex Dynamics 2015*, **Barcelona**, November 23-27  
 Rencontre ANR LAMBDA, held in **Amiens**, September 28-30  
*Complex Analysis and Geometry - XXII*, **Levico**, May 31 - June 5  
*Aspects métriques et dynamiques en analyse complexe*, **Lille**, May 18-23  
*Komplex Analysis Weeklong School and Workshop (KAWA6)*, **Pisa**, March 23-29  
*Postgraduate Conference in Complex Dynamics*, **London**, March 11-13
- 2014 | *Progressi Recenti in Geometria Reale e Complessa - IX*, **Levico**, October 20-23

## Special lectures

- 2023 | **Cologne** (Monthly Regional Bochum-Essen-Koeln-Wuppertal seminar), January  
 2022 | **Oklahoma** (Karcher Colloquium), October

## Talks in research seminars

- 2024 | **Oklahoma** (February), **Singapore** (March), **Roma Tor Vergata** (May), **Singapore** (September)
- 2023 | **Cologne** (Regional Bochum-Essen-Koeln-Wuppertal seminar, January), **Singapore** (February), **Oklahoma** (February), **Tashkent**, Uzbekistan (March, online), **IMPAN, Warsaw** (March), **Paris Sorbonne** (April), **Lille** (April), **Amiens** (May), **Paris IHP** (June), **Florence** (November), **Toulouse** (December)
- 2022 | **Paris Sorbonne** (January), **Open University, Milton Keynes**, UK (March, online), **Rennes** (May), **Beijing** (June, online), **Cologne** (July), **Pisa** (September), **Angers** (October), **Singapore** (November), **North Texas** (December, online)
- 2021 | **Tashkent**, Uzbekistan (November), **Bordeaux** (November)
- 2020 | **Lille** (February), **Toulouse** (November, online)
- 2019 | **Amiens** (October), **RIMS Kyoto** (December)
- 2018 | **NUS Singapore** (February), **Nice** (April), **Warsaw** (June), **Lille** (September)
- 2017 | **Lille** (February), **Paris 6** (February), **Orléans** (April), **Rennes** (April), **Queen Mary**, London (September), **Dijon** (October), **Warwick** (October), **Tokyo** (December)
- 2016 | **Imperial College, London** (January), **Open University, Milton Keynes**, UK (January), **Dijon** (June), **Amiens** (October), **Liverpool** (November)
- 2015 | **IMPAN, Warsaw** (September), **Toulouse** (November)

## Research courses

- 2025 (planned) | *Thermodynamic formalism in holomorphic dynamics in Beyond uniform hyperbolicity 2025*, **ICTP Trieste**, June
- 2024 | 2x1h30 mini-course *Dynamics of horizontal-like maps* in the first PHC Galileo meeting, **Parma**, October 23-25
- 2023 | 4x1h30 course *Equilibrium states through potential theory* in the Simons Semester on Dynamical Systems: *Topological, smooth and holomorphic dynamics, ergodic theory, fractals* in Banach Center, **Warsaw**, March
- 2018 | 2x1h30 mini-course *Bifurcations for polynomial-like maps* in the First ANR FATOU meeting, **Amiens**, April 16-18

## Visits (at least a week, conferences excluded)

- 2024 | **Oklahoma** (February), **Singapore** (March and August), **Hanoi** (August)
- 2023 | **Milan** (January), **Singapore** (January-February), **Oklahoma** (February), **Warsaw** (March), **Toulouse** (July and December)
- 2022 | **MSRI** (February), **Singapore** (April and November), **Cologne** (July), **Milan** (July), **Oklahoma** (September-October)
- 2021 | **Orléans** (June), **Tashkent** and **Bukhara**, Uzbekistan (November)
- 2019 | **Milan** (April), **London** (April), **Orléans** (May), **Trento** (June), **Cologne** (July), **Lahore**, Pakistan (October), **Singapore** (November), **Kyoto** (December)
- 2018 | **Singapore** (February and December), **Warsaw** (June), **Milan** (August), **Lille** (October)
- 2017 | **Paris, Paris 6** and **Ecole Polytechnique** (March), **Dijon** (July and October), **Orléans** (September), **Kyoto** and **Tokyo** (December)

- 2016 | **London, Imperial College** (January), **Amiens** (October)  
 2015 | **Warsaw, IMPAN** (September)  
 2012 | **Paris, Ecole Normale Superieure** (October-December, as exchange student during the last year of undergraduate studies)

## Publications

### Published papers

- (with Yan Mary He) *A Mané-Manning formula for expanding measures for endomorphisms of  $\mathbb{P}^k$*   
**Transactions of the AMS**, Volume 377, Number 11, 8179-8219, 2024
- (with Tien-Cuong Dinh and Karim Rakhimov) *Monotonicity of dynamical degrees for horizontal-like and polynomial-like maps*  
**Transactions of the AMS**, Volume 377, Number 9, 6595-6618, 2024
- (with Tien-Cuong Dinh) *Equilibrium states of holomorphic endomorphisms of  $\mathbb{P}^k$  II: spectral gap and limit theorems*  
**Geometric and Functional Analysis (GAFA)**, Volume 34, 1006–1051 (2024)
- (with Karim Rakhimov) *Strong probabilistic stability in holomorphic families of endomorphisms of  $\mathbb{P}^k$  and polynomial-like maps*  
**International Mathematics Research Notices (IMRN)**, Volume 2024, Issue 12, 9875–9892 (2024)
- (with Samuele Mongodi) *Generalized Levi currents and singular loci for families of plurisubharmonic functions*  
**Journal of Geometric Analysis**, Volume 34, article number 203 (2024)
- (with Tien-Cuong Dinh) *Every complex Hénon map is exponentially mixing of all orders and satisfies the CLT*  
**Forum of Mathematics, Sigma**, Volume 12, article e4 (2024)
- (with Tien-Cuong Dinh) *Equilibrium states of holomorphic endomorphisms of  $\mathbb{P}^k$  I: existence and properties*  
**Journal de Mathématiques Pures et Appliquées**, Volume 172, 162-201 (2023)
- (with Matthieu Astorg) *Hyperbolicity and bifurcations in families of polynomial skew products*  
**American Journal of Mathematics**, Volume 145, Number 3, 861-898 (2023)
- (with Samuele Mongodi) *On minimal kernels and Levi currents on weakly complete complex manifolds*, 2021  
**Proceedings of the AMS**, Volume 150, Issue 9, 3927–3939 (2022)
- (with Matthieu Astorg) *Higher bifurcations for polynomial skew products*  
**Journal of Modern Dynamics**, 18, 69-99 (2022)
- (with Yūsuke Okuyama) *Degeneration of quadratic polynomial endomorphisms to a Hénon map*  
**Indiana University Mathematics Journal**, Volume 69, 2549-2570 (2020)
- Misiurewicz parameters and dynamical stability for polynomial-like maps of large topological degree*  
**Mathematische Annalen**, Volume 373, 901–928 (2019)
- Parabolic implosion for endomorphisms of  $\mathbb{C}^2$*   
**Journal of the European Mathematical Society**, Volume 21, 3709-3737 (2019)
- (with François Berteloot) *Perturbations d'exemples de Lattès et dimension de Hausdorff du lieu de bifurcation*  
**Journal de Mathématiques Pures et Appliquées**, Volume 116, 161–173 (2018)
- (with François Berteloot and Christophe Dupont) *Dynamical stability and Lyapunov exponents for holomorphic endomorphisms of  $\mathbb{P}^k$*   
**Annales Scientifiques de l'ENS**, Volume 51, Issue 1, 215–262 (2018)

(with Johan Taflin) *Bifurcations in the elementary Desboves family*  
**Proceedings of the AMS**, Volume 145, Issue 10, 4337–4343 (2017)

(with Marco Abate) *A Poincaré-Bendixson theorem for meromorphic connections on Riemann surfaces*  
**Mathematische Zeitschrift**, Volume 282, Issue 1, 247–272 (2016).

## Preprints

(with Yan Mary He) *Pressure path metrics on parabolic families of polynomials*, 2024

(with Sardor Bazarbaev and Karim Rakhimov) *On the support of measures of large entropy for polynomial-like maps*, 2024

(with Tien-Cuong Dinh and Karim Rakhimov) *Hölder continuity and laminarity of the Green currents for Hénon-like maps*, 2024

(with Matthieu Astorg) *Horn maps of semi-parabolic Hénon maps*, 2024  
**Mathematische Annalen**, to appear

(with Maxence Brévard) *Holomorphic motions of weighted periodic points*, 2023  
**Proceedings of the Simons Symposia on Algebraic, Complex, and Arithmetic Dynamics**, to appear

(with Tien-Cuong Dinh) *Exponential mixing of all orders and CLT for automorphisms of compact Kähler manifolds*, 2023

## Other

(with Tien-Cuong Dinh) *Statistical properties of complex Hénon maps*, in *Hénon maps: a list of open problems* (Eds. C. Favre, T. Firsova, L. Palmisano, J. Raissy, G. Vigny)  
**Arnold Mathematical Journal**, 2024

(with François Berteloot) *Stability and bifurcations in projective holomorphic dynamics*  
Dynamical systems, **Banach Center Publications**, 115, Polish Acad. Sci. Inst. Math., Warsaw, 37–71, 2018

## Editorial work

*Editor* of the Springer Lecture Notes Volume *Quantitative aspects in complex analysis, geometry, and dynamics* (in preparation). This volume is the collection of the expanded lectures notes of the courses in the ACQUA21 school that I organized in Lille in 2021.

*Reporter* for the Oberwolfach report 40/2022, *Complex Geometry and Dynamical Systems*

## Research Fellowships, grants, and other funding (by year of award)

### Fellowships and positions (excluding declined positions)

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|------|---|
| 2023 | Winner of the competition for a permanent full-time position of <i>Professore Associato</i> at the University of Pisa                                   |
| 2018 | Winner of the French national competition for a permanent full-time CNRS researcher position<br>Two-year Marie Skłodowska-Curie Individual Fellowship   |
| 2016 | Two-year Chapman Fellowship, Department of Mathematics, Imperial College  |
| 2013 | LabEx CIMI full PhD scholarship (2013-2016), Université Paul Sabatier, Toulouse   |
| 2008 | Winner of the competition for Full Scholarship for a 5-year term of studies (2008-2013) in the Science Class of Scuola Normale Superiore di Pisa (SNS). |

### Participation and direction of research groups

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|------|--|
| 2024 | Member of the ANR TIGerS (Tangent to the Identity Germs and affine Surfaces, PI Xavier Buff), 2025-2028, €374.321  |
| 2023 | Member of the PHC Galileo G24-123 (From rational to transcendental: complex dynamics and parameter spaces, PIs Miriam Benini and Jasmin Raissy), €6.250 (Italian side) |

- 2021 | Coordinator of the Axis *Holomorphic Dynamics* of the three-year ANR-DFG funded project QuaSiDy (Quantization, Singularities, and Holomorphic Dynamics, PIs Viet-Anh Nguyen and George Marinescu), 2022-2024, €562.000  
Member of the four-year ANR funded project PADAWAN (Parabolic dynamics, bifurcations, and wandering domains, PI Matthieu Astorg), 2022-2025, €184.000
- 2019 | PI of the two-year I-SITE ULNE grant NEPECAD (New perspectives in Complex Analytic Dynamics), Lille (2020-2021), €118.800

### Funding for specific events

- 2021 | INDAM funding for the workshop "New trends in holomorphic dynamics", 2022, €15000 + use of Palazzone of Cortona
- 2020 | *Porteur* for the "CNRS Ecole Thematiques" project, for the organization of ACQUA20/21 (various grants, total budget of the event €18000)

### Other collaborative funding

- 2019 | 3 months CNRS "Poste Rouge" Invitation for Yusuke Okuyama (with Gabriel Vigny)  
1-week Research in Pairs (with Samuele Mongodi), CIRM-FBK Trento (Italy)  
Projet Internationalisation BQR (with Viet-Anh Nguyen), Université de Lille, for cooperation with the Institute of Mathematics of Cologne (€2500)
- 2017 | Imperial College European Partner Fund (with Davoud Cheraghi), for collaboration with the French community in holomorphic dynamics, 2017-2019 (£5,000)

### Other personal funding

- 2023 | *Junior Leader* 1-month fellowship of the Simons Semester on Dynamical Systems: *Topological, smooth and holomorphic dynamics, ergodic theory, fractals* in Banach Center, Warsaw, Spring 2023; invited 1-week course
- 2019 | 3-week JSPS Invitational Fellowships for Research in Japan (Short-term), host: Yusuke Okuyama  
Projet Exploratoire Premier Soutien (PEPS) *Jeune chercheuse, jeune chercheur*, CNRS, €3500
- 2017-18 | Imperial College Research Imperial College Research Impulse Awards (3x) (total £3000)
- 2014 | Mobility grant *Bando Vinci* from the *Université Franco-Italienne* for joint PhD degrees between Italy and France (€4500)
- 2013 | Grant from SNS to attend the *Advanced school and workshop in Real and Complex Dynamics*, ICTP Trieste, May 20-31, 2013 (€750)
- 2012 | Grant from SNS, fully funded visit to the Ecole Normale Supérieure, Paris, Oct-Dec 2012

### Service and responsibilities

- 2024- | Member of the *PhD School board*, Dipartimento di Matematica, Pisa
- 2024- | Member of the *Commissione di Coordinamento* of the *Dipartimento di Eccellenza* project, Dipartimento di Matematica, Pisa
- 2024-2025 | Responsible for the *VQR 2020-2024 evaluation* preparation, Dipartimento di Matematica, Pisa
- 2020-2023 | *Membre du Conseil*, Laboratoire Paul Painlevé
- 2020-2023 | *Membre du Conseil*, Fédération de Recherche Mathématique des Hauts-de-France
- 2022 | Member of the hiring committee for a *Maître de Conférences* (lecturer, tenured position), Université de Lille
- 2020 | Member of the hiring committee for a *Maître de Conférences* (lecturer, tenured position), Université de Amiens
- 2024 | Referee for the NWO (Dutch Research Council), one grant proposal
- 2021- | Referee for the Polish National Science Centre (evaluation of two grant applications, 2021, 2023)

Referee for	<i>Analysis and Mathematical Physics, Annali della Scuola Normale Superiore di Pisa, Computational methods and function theory, Discrete and continuous dynamical system, Fundamenta mathematicae, Inventiones Mathematicae, Journal für die reine und angewandte Mathematik (Crelle's journal), Journal of Dynamical and Control Systems, Journal of Fixed Point Theory and Applications, Journal of Geometric Analysis, Journal of the European Mathematical Society, Proceedings of the AMS, Rendiconti del Circolo Matematico di Palermo</i>
Expert opinion for	<i>Advances in Mathematics, Communication in Mathematical Physics, Conformal Geometry and Dynamics, Fundamenta Mathematicae, Geometric and Functional Analysis (GAFA), Journal of Functional Analysis, Journal of the American Mathematical Society, Journal of the European Mathematical Society, Journal of the London Mathematical Society, Mathematische Annalen, Results in Mathematics, Revue Roumaine de Mathématiques Pures et Appliquées, Transactions of the AMS</i>
Reviewer for	<i>Mathematical Reviews and zbMATH - Zentralblatt MATH</i>

## Organization of events

### Conferences and meetings

- 2025 | CIMI semester *Holomorphic dynamics and geometry of surfaces*, Toulouse, France, January-June  
<https://www.cimi.univ-toulouse.fr/en/all-news/c8b29677-3c4d-438b-b4de-aecc5be1a274/>  
with Xavier Buff, Julio Rebelo, and Slavyana Geninska
- 2023 | *Pluripotential theory and holomorphic foliations*, Valenciennes, France, 25-27 October  
<https://workshophfpt.sciencesconf.org>  
with Séverine Biard, Judith Brinkschulte, and Viet-Anh Nguyen
- 2023 | *Workshop on complex geometry and holomorphic dynamics*, Calais, France, 4-5 September  
<https://www.mathconf.org/wcghd2023>  
with Daniel Greb and Christian Miebach
- 2022 | *New trends in holomorphic dynamics*, Cortona, Italy, 29 August, - 2 September 2022  
<https://sites.google.com/view/hds-cortona-2022>  
with Leandro Arosio, Jasmin Raissy, and Matteo Ruggiero
- 2022 | *Introductory workshop of the MSRI semester Complex Dynamics: from special families to natural generalizations in one and several variables*  
MSRI, 8 - 17 February 2022  
<https://www.msri.org/workshops/971>  
with Anna Miriam Benini, Mikhail Hlushchanka, and Dylan Thurston
- 2021 | *ACQUA21 - Quantitative aspects in complex analysis, geometry and dynamics*  
1-week school + workshop, Lille, October 25 - 29, 2021  
<https://www.mathconf.org/acqua2021/>  
with George Marinescu, Volker Mayer, Viet-Anh Nguyen, Karim Rakhimov, and Gabriel Vigny  
*porteur du projet*
- 2021 | *Journée du Laboratoire Paul Painlevé*, Villeneuve d'Ascq, July 1  
<https://www.mathconf.org/jlpp2020>  
with Sylvain Arguillère and Baba Thiam
- 2019 | *Journée d'analyse complexe*, Lille, October 9  
<https://www.mathconf.org/jac2019>  
with Viet-Anh Nguyen

### Regular seminars

- 2021-2023 | Monthly seminar "Dynamique Holomorphe"  
IHP, Paris  
with Matthieu Astorg and Nguyen Bac Dang

2020-2023 | Weekly seminar “Analyse Complexe et Equations differentielles”  
 Laboratoire Paul Painlevé, Université de Lille  
 with Viet-Anh Nguyen and Changgui Zhang

## Teaching and tutoring

2024-2025 | Università di Pisa  
 - *Complex Analysis and Geometry*, MSc course, Mathematics degree  
 - *Mathematical analysis*, first year, Informatics degree  
 - *Mathematics*, first year, Tecniche per la Meccanica e la Produzione, Engineering degree

2023-2024 | Università di Pisa  
 - *Holomorphic dynamics*, MSc course, Mathematics degree  
 - *Mathematical analysis*, first year, Informatics degree

2021-2022 | International Mathematics Master - COMSATS, Lahore, Pakistan  
 (ICTP – CUI Visiting Scholars Program for Training and Research in Mathematics)  
 - *Differential geometry*, MSc course (with Marco Abate, Eleonora di Nezza, and Francesca Tovena)  
 Université de Lille  
 - *Tutor* for two fourth year students

2020-2021 | Université de Lille  
 - *Ergodic theory, theory of currents, and complex dynamics*, “M2 Recherche” course  
 International Mathematics Master - COMSATS, Lahore, Pakistan  
 - *Mathematical analysis (exercise classes, online)*  
 - *Functional analysis (exercise classes, online)*

2019-2020 | International Mathematics Master - COMSATS, Lahore, Pakistan  
 - *Differential geometry*, MSc course (with Marco Abate)

2017-2018 | Imperial College London  
 - *Geometric Complex Analysis*, 3rd-4th-MSc course  
 - *Tutor* for six first, second and third year students

2016-2017 | Imperial College London  
 - *Introduction to Riemann surfaces and conformal dynamics*, 3rd-4th-MSc course  
 - *Tutor* for five first and second year students

2015-2016 | Université Paul Sabatier, Toulouse  
 - *Mathématiques 1 - Analyse 1*, L1 (first year) Sciences fondamentales et appliquées, course and exercises.

2014-2015 | Université Paul Sabatier, Toulouse  
 - *Mathématiques*, L1 (first year) Sciences Naturelles, course and exercises;  
 - *Option Mathématiques*, L1 (first year) Sciences Naturelles, exercises-only course.

2014 | *Modern Mathematics International Summer School for Students*, held in Lyon, August 20-29, 2014. Tutor and teaching assistant for the classes:  
 - *Tropical geometry and enumeration of curves*  
 - *Ultraproducts, asymptotics, and model theory*



## Supervision

### Master thesis

Q. Luong	Imperial College, 2018. Quintin went on to do a PhD in Queen Mary, London
M. Brévard	ENS Rennes and Paris 13, 2020. Maxence went on to do a PhD in Toulouse, under my joint supervision
W. Akram	Lahore, 2021. Waseem went on attending a Master in Calabria, Italy to further prepare for PhD in Europe
D. Hussain	Lille, 2023. Daniel is now PhD student in Lille

### Other undergraduate projects

M. Tabaro	MSc summer project (Imperial 2018). Matteo later did the PhD in Imperial College
W. Lim	MSc summer project (Imperial 2018). Willie later did the PhD in Stony Brook, US

### PhD

M. Brévard	2020-2023, joint with François Berteloot, Toulouse (defended on 4th December 2023)
S. Bazarbaev	2022-2025, National University of Uzbekistan, Tashkent, joint with Karim Rakhimov
M. Vergamini	2023-2027, Scuola Normale Superiore, Pisa

### Postdoc

K. Rakhimov	2020-2022, with a fellowship funded by my I-SITE grant. After this postdoc, Karim got a position of associate professor in Tashkent National University, the most prestigious university in Uzbekistan.
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## Participation in Conferences (excluding online events)

2024	<i>SCV, CR geometry and Dynamics</i> , RIMS Kyoto, November 25-29 <i>First meeting of the PHC Galileo G24-123</i> , Parma, October 23-25 <i>CR Analysis and Complex Dynamics</i> , Leipzig, September 30 - October 1 <i>Complex Analysis and Complex Geometry</i> , Hanoi (Vietnam), August 26-29 <i>On Geometric Complexity of Julia Sets-V</i> , Bedlewo, Poland, July 21-26 <i>Complex Dynamics and complex geometry</i> , Amiens, June 17-21 <i>Parameter spaces in complex dynamics and related topics</i> , Pisa, May 27-31 <i>Index Theory and Complex Geometry Part 2</i> , Singapore, April 29 - May 3
2023	<i>Geometric and Topological Properties of Random Algebraic Varieties</i> , Cologne, October 4-6 XXI Congresso Unione Matematica Italiana, Pisa, September 4-8 <i>Algebraic Geometry, Arithmetic and Dynamics Part 2</i> , Singapore, August 28 - September 1 <i>Surfaces affines et germes tangents à l'identité</i> , Toulouse, July 10-13 <i>SCV, CR geometry, and Dynamics</i> , Nice, May 30-June 4 <i>Dynamics of Hénon Maps: Real, Complex and Beyond</i> , Banff, Canada, April 10-14 <i>Complex dynamics: connections to other fields</i> , University of Warsaw Conference Centre in Checiny, Poland, March 27-31 First ANR PADAWAN meeting, Orléans, January 5-6
2022	<i>Conference on Complex Analysis, Complex Geometry and Dynamics, in memory of Nessim Sibony</i> , Orsay, December 5-9 <i>Complex Geometry, Dynamical Systems and Foliation Theory</i> , CIRM Marseille, October 17-21 <i>Complex Geometry and Dynamical Systems</i> , Oberwolfach, Germany, September 4-10 <i>New trends in holomorphic dynamics</i> , Cortona, Italy, August 29-September 2 Simons Symposium <i>Algebraic, Complex and Arithmetic Dynamics</i> , Schloss Elmau in Elmau (Krün, Germany), August 22-26 <i>1st Al-Khorezmi International Conference on Modern problems of Mathematics</i> , dedicated to the 75th anniversary of Azimbay Sadullaev, Urgench, Uzbekistan, July 25-28 <i>Final conference ANR FATOU</i> , Orléans, June 13-17 <i>Adventurous Berkeley Complex Dynamics</i> , main conference in the MSRI semester <i>Complex Dynamics: from special families to natural generalizations in one and several variables</i> May 2-6 (MSRI)

- 2021 | *On geometric complexity of Julia sets - III*, Bedlewo, Poland, September 27-October 1  
CIME School *Modern dynamics*, Cetraro, Italy, August 2-6
- 2020 | *Complex dynamics*, CIRM Marseille, January 27-31
- 2019 | *Bifurcation and stability in complex dynamics*, Kyoto, December 9-13  
*Geometry and dynamics*, Singapore, November 20  
Rencontre ANR FATOU, Orleans, November 13-15  
*Dynamics, Equations and Applications*, Krakow, September 16-20  
XX Congresso Unione Matematica Italiana, Pavia, September 2-7  
*Complex Analysis and Geometry - XXII*, held in Levico, May 31 - June 5  
*Analytic Low-Dimensional Dynamics: a celebration of Misha Lyubich's 60th birthday*, Toronto, May 27-31  
Rencontre ANR FATOU, Ecole Polytechnique, May 15-17  
*Topics in Complex Dynamics 2019*, Barcelona, March 25-29  
LMS Scheme 3 Network in Holomorphic Dynamics meeting, Nottingham, January 14
- 2018 | *Journée de Dynamique Complexe*, Nice, December 18  
Rencontre ANR FATOU, Dijon, November 14-16  
*Journées Complexes du Nord*, Lille, October 22-23  
*Complex Analysis and Geometry in Pisa*, Pisa, October 5-6  
CIME School *Complex non-Kähler geometry*, Cetraro, July 9-13  
*New Developments in Complex Analysis and Function Theory*, Heraklion, July 2-6  
*Analysis aspects of dynamics*, Imperial College London, 16-18 May  
Final conference ANR LAMBDA, Toulouse, May 28-June 1  
First ANR FATOU meeting, Amiens, April 16-18  
*Varietà reali e complesse: geometria, topologia e analisi armonica*, Pisa, February 1-3
- 2017 | *Holomorphic Dynamics*, RIMS, Kyoto, December 11-15  
*Topics in Complex Dynamics 2017*, Barcelona, October 2-6  
LMS Scheme 3 Network in Holomorphic Dynamics meeting, Imperial College, London, March 22  
*Aspects of dynamical systems*, Imperial College, London, March 16-18
- 2016 | *Progressi Recenti in Geometria Reale e Complessa - X*, Levico, October 8-11  
Workshop *Residues and dynamics*, Pisa, September 12-13, 2016  
*Parameter Problems in Analytic Dynamics*, London, June 27- July 1  
*North-American Workshop in Holomorphic Dynamics*, Cancun, May 27 - June 4  
*Komplex Analysis Weeklong School and Workshop (KAWA7)*, Toulouse-Albi, March 7-12  
*Workshop on Dynamical systems in logic, complex analysis and ergodic theory*, Pisa, February 8-9
- 2015 | *Topics in Complex Dynamics 2015*, Barcelona, November 23-27  
Rencontre ANR LAMBDA, Amiens, September 28-30  
*Topics in Analysis and Holomorphic Dynamics*, Warsaw, September 15-18  
*Complex Analysis and Geometry - XXII*, Levico, May 31 - June 5  
*Aspects métriques et dynamiques en analyse complexe*, Lille, May 18-23  
*Komplex Analysis Weeklong School and Workshop (KAWA6)*, Pisa, March 23-29  
*Postgraduate Conference in Complex Dynamics*, London, March 11-13  
Rencontre ANR LAMBDA, Toulouse, January 29-30
- 2014 | *Progressi Recenti in Geometria Reale e Complessa - IX*, in Levico, October 20-23  
Rencontre inaugurale ANR LAMBDA, Marne la Vallée, April 14-16  
*Komplex Analysis Winter School and Workshop (KAWA-Nordan)*, CIRM, Marseille, March 24-29
- 2013 | Workshop *Parabolic renormalization*, Pisa, June 3 - June 7  
*Advanced School and Workshop in Real and Complex Dynamics*, Trieste (Italy), May 20-31  
Workshop *Varietà reali e complesse: geometria, topologia e analisi armonica*, Pisa, February 28 - March 3
- 2012 | INdAM Conference *New Trends in Holomorphic Dynamics*, Cortona (Italy), September 3-7