

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. 1 posto di Ricercatore a tempo determinato ai sensi dell'art.24,

comma 3, lettera b) della Legge 240/2010 per il settore concorsuale 01/A3 - ANALISI MATEMATICA, PROBABILITÀ E STATISTICA MATEMATICA,

settore scientifico-disciplinare MAT/05 - ANALISI MATEMATICA

presso il Dipartimento di MATEMATICA "F. ENRIQUES",

(avviso bando pubblicato sulla G.U. n. 35 del 04/05/21) Codice concorso 4625

Alessandro Monguzzi
CURRICULUM VITAE

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

COGNOME	MONGUZZI
NOME	ALESSANDRO
DATA DI NASCITA	14/04/1986

Data

30 maggio 2021

Luogo

Lissone

Alessandro Monguzzi

Curriculum Vitae

Università degli Studi di Milano–Bicocca
Dipartimento di Matematica e Applicazioni
Via R. Cozzi 55, Milano, Italy 20126
✉ alessandro.monguzzi@unimib.it



Positions

- June 2019 – present **Postdoctoral research fellow**, *Università degli Studi di Milano–Bicocca*, Milano, Italy.
Mentor: Prof. B. Di Blasio.
- 2015 – May 2019 **Postdoctoral research fellow**, *Università degli Studi di Milano*, Milano, Italy.
Mentor: Prof. M. Salvatori.
- 2012 – 2014 **Visiting Scholar**, *University of Arkansas*, Fayetteville, AR, USA.
Visiting scholar at the University of Arkansas within my Ph.D. program at Università degli Studi di Milano.

Education

- 2018 **FOR24**, *Università degli Studi di Milano*, Milano, Italy.
One-year program to obtain 24 certified credits in anthro-psycho-pedagogic topics and in education methods and technologies necessary to teach in italian secondary schools.
- 2011 – 2015 **Ph.D. in Mathematics**, *Università degli Studi di Milano*, Milano, Italy.
Thesis: “On the regularity of singular integral operators on complex domains”.
Advisor: Prof. Marco M. Peloso.
- 2008 – 2011 **Masters Degree in Mathematics**, *Università degli Studi di Milano*, Milano, Italy.
Thesis: “La teoria dei pesi A_p per misure in \mathbb{R}^n ” (in italian).
Advisor: Prof. Marco M. Peloso. Graduated cum laude.
- 2005 – 2008 **Bachelor Degree in Mathematics**, *Università di Milano–Bicocca*, Milano, Italy.
Thesis: “Sul Teorema di C. Fefferman per i moltiplicatori” (in italian).
Advisor: Prof. S. Meda.

Publications

Peer-reviewed articles.

1. “(Ir-)Regularity of canonical projection operators on some weakly pseudoconvex domains”, with Marco M. Peloso, *Lecture notes of Seminario Interdisciplinare di Matematica* (2020), Vol. 15, pp. 55 - 73.
2. “Fractional Paley–Wiener and Bernstein spaces”, with Marco M. Peloso and Maura Salvatori, *Collect. Math.* (2020), doi.org/10.1007/s13348-020-00303-4.
3. “Fractional Laplacian, homogeneous Sobolev spaces and their realizations”, with Marco M. Peloso and Maura Salvatori, *Ann. Mat. Pura Appl.* (4) 199 (2020), no. 6, 2243–2261. (2020).
4. “Quaternionic inner and outer functions”, with Daniel Seco and Giulia Sarfatti, *Concrete Operators*, 6 (2019), no. 1, pp. 44-57.

5. "Paley–Wiener Theorems on the Siegel upper half-space", with Nicola Arcozzi, Marco M. Peloso and Maura Salvatori, *J. Fourier Anal. Appl.* 25 (2019), no. 4, 1958–1986.
6. "Shift Invariant Subspaces of slice L^2 functions", with Giulia Sarfatti, *Ann. Acad. Sci. Fenn. Math.* 43 (2018), 1045–1061.
7. "Sharp estimates for the Szegő projection on the distinguished boundary of model worm domains", with Marco M. Peloso, *Integral Equations Operator Theory* 89 (2017), no. 3, 315–344.
8. "Regularity of the Szegő projection on model worm domains", with Marco M. Peloso, *Complex Var. Elliptic Equ.* 62 (2017), no. 9, 1287–1313.
9. "A comparison between the Bergman and Szegő kernels of the non-smooth worm domain D'_β ", *Complex Anal. Oper. Theory* 10 (2016), no. 5, 1017 – 1043.
10. "On Hardy spaces on worm domains ", *Concr. Oper.* 3 (2016), 29 – 42.
11. "Hardy Spaces and the Szegő projection of the non-smooth worm domain D'_β ", *J. Math. Anal. Appl.* 436 (2016), no. 1, 439 – 466.

Accepted for publication.

1. "Holomorphic function spaces on the Hartogs triangle", accepted for publication on *Mathematische Nachrichten* (2020). Preprint available online (ArXiv).

Submitted for publication.

1. "Ahlfors regular spaces have regular subspaces of any dimension", with Nicola Arcozzi and Maura Salvatori (2019). Preprint available online (ArXiv).
2. "The Drury–Arveson space on the Siegel upper half-space and a von Neumann type inequality", with Nicola Arcozzi, Nikolaos Chalmoukis, Marco M. Peloso and Maura Salvatori (2021). Preprint available online (ArXiv).
3. "Sampling in spaces of entire functions of exponential type in \mathbb{C}^{n+1} ", with Marco M. Peloso and Maura Salvatori (2021). Preprint available online (ArXiv).

Work in progress.

1. "Bergman projection and ramified coverings", with Gian Maria Dall'Ara.
2. "Interpolation in fractional Paley–Wiener spaces", with Nikolaos Chalmoukis.
3. "Expansion in Bernoulli polynomials in several variables". with Luca Brandolini, Leonardo Colzani, Bianca Gariboldi and Giacomo Gigante.

Research Projects

GNAMPA 2020 "Alla frontiera tra l'analisi complessa in più variabili e l'analisi armonica". Role: Principal Investigator.

Prin 2015 "Varietà reali e complesse: geometria, topologia e analisi armonica". Role: participant (P.I.: MiUR Fulvio Ricci).

Prin 2010–11 "Varietà reali e complesse: geometria, topologia e analisi armonica". Role: participant (P.I.: MiUr Fulvio Ricci).

Talks and Seminars

Invited talks and seminars.

- Jun. 2021 (scheduled) Real and complex manifolds. The mathematical heritage of Edoardo Vesentini, Scuola Normale Superiore, Pisa, Italy.
- Jan. 2021 On-line seminar in the series "Seminars on complex analysis and allied topic". Website: <https://sites.google.com/view/complex-analysis-seminar/home-page>
- Sep. 2020 Recent progress in HyperComplex analysis and geometry, Politecnico di Milano (on-line event), Italy.
- May 2020 CR-geomety and PDE's - IX, Levico Terme, Italy. *The event was canceled due to the Covid19 emergency.*
- Feb. 2020 Workshop 2020 "Varietà reali e complesse: geometria, topologia e analisi armonica", Scuola Normale Superiore, Pisa, Italy. *The event was canceled due to the Covid19 emergency.*
- Feb. 2020 Università di Bologna, Seminar in the series BAD seminars.
- Sep. 2019 XXI Congresso UMI - Special session in Harmonic Analysis, Pavia, Italy.
- Jul. 2019 Politecnico di Milano, Analysis Seminar, Milano, Italy.
- May 2019 Analysis Days in Piedmont 2019 - workshop organized by the Department of Mathematics of the University of Bologna in collaboration with the Chebyshev Laboratory, Salmour, Italy.
- Jan. 2019 Nanoworkshop on function spaces, Università di Bologna, Italy.
- Nov. 2017 Università di Bologna, Analysis Seminar in the series "Complex Analysis Lab", Bologna, Italy.
- Nov. 2015 University of Kansas Analysis Seminar, University of Kansas, Lawrence, Kansas, USA.
- Mar. 2015 Workshop 2015 "Varietà reali e complesse: geometria, topologia e analisi armonica", Scuola Normale Superiore, Pisa, Italy.
- Jul. 2013 Università di Milano Bicocca Harmonic Analysis Seminar, Università di Milano Bicocca, Milano, Italy.

Other selected talks and presentations.

- Jun. 2021 (scheduled) 2021 Indam workshop on Bergman projections and related topics, on-line event.
- May 2021 XL Convegno Nazionale di Analisi Armonica, Torino, on-line edition, Italy.
- Jun. 2020 XXXIX Convegno Nazionale di Analisi Armonica, Bologna, on-line edition, Italy.
- Sep. 2019 Summer School on Applied Harmonic Analysis and Machine Learning, Genova, Italy.
- May 2019 XXXVIII Convegno Nazionale di Analisi Armonica, Bergamo, Italy.
- Jun. 2018 15th Advanced Course in Operator Theory and Complex Analysis, Bologna, Italy.
- May 2018 New Trends in Harmonic Analysis, Torino, Italy.
- Jun. 2017 14th Advanced Course in Operator Theory and Complex Analysis, Madrid, Spain.
- May 2017 Hilbert Function Spaces, Gargnano, Italy.
- May 2017 XXXVII Convegno Nazionale di Analisi Armonica, Bressanone, Italy.
- Jun. 2016 XXXVI Convegno Nazionale di Analisi Armonica, Gargnano, Italy.
- Jun. 2015 12th Advanced Course in Operator Theory and Complex Analysis, Bologna, Italy.
- Feb. 2013 University of Arkansas Analysis Seminar, University of Arkansas, Fayetteville, Arkansas, USA.

Visits

- Sep. 2018 Università di Firenze, Firenze, Italy. Scientific visit to Giulia Sarfatti (1 week).

- Sep. 2017 - present Università di Bologna, Bologna, Italy. Regular visits to the Department of Mathematics to attend the activities of the Complex Analysis Lab (<https://site.unibo.it/complex-analysis-lab/en>). Scientific supervisor: Nicola Arcozzi.
- Nov. 2015 University of Kansas, Lawrence, Kansas, USA. Scientific visit to Jarod Hart (1 week).
- Nov. 2015 Washington University in St. Louis, Missouri, USA. Scientific visit to Steven G. Krantz (3 weeks).
- Mar. 2014 – May 2014 Visiting Scholar, University of Arkansas, Fayetteville, Arkansas, USA. Studying period during my PhD. Scientific supervisor: Andrew S. Raich.
- Aug. 2013 – Oct. 2013 Visiting Scholar, University of Arkansas, Fayetteville, Arkansas, USA. Studying period during my PhD. Scientific supervisor: Andrew S. Raich.
- Sep. 2012 – Apr 2013 Visiting Scholar, University of Arkansas, Fayetteville, Arkansas, USA. Studying period during my PhD. Scientific supervisor: Andrew S. Raich.
- May 2011 –Jul. 2011 Doc-course-IMUS 2011: Harmonic Analysis, Metric Spaces and Applications to P.D.E., Sevilla, Spain. Intense two-months program for prospective PhD students.

Affiliations

- UMI Member of UMI (Unione Matematica Italiana - Italian Mathematical Society) since 2019.
- Indam Group Member of Italian National Group for Mathematical Analysis, Probability and their Applications (GNAMPA). . 2012–2013 and 2015– present.

Referee Activities

Referee for *Journal of Mathematical Analysis and Applications*, *Boletín de la Sociedad Matemática Mexicana* and *Mathematical Methods in the Applied Sciences*.

Organization and Service

- Sep. 2020 - present Co-organiser of the series of on-line seminars “Seminari di Analisi Armonica a distanza”. Webpage: <https://sites.google.com/view/seminarivaa/>.
- 2019 - present Reviewer for Zentralblatt MATH.
- Sep. 2017 - present Co-organiser and occasional speaker of the series of seminars “Complex Analysis Lab” at University of Bologna. Webpage: <https://site.unibo.it/complex-analysis-lab/en>.
- 2017 - present Reviewer for the AMS Mathematical Reviews.
- May 2016 Co-organiser of the XXXVI Convegno Nazionale di Analisi Armonica held in Gargnano, Italy.
- 2016 - 2019 PostDocs representative in the Math Department Council, Università degli Studi di Milano.
- 2013 - 2015 PhD representative in the Math Department Council, Università degli Studi di Milano.

Teaching Activity

- Spring 2020 **Lecturer**, *Università degli Studi di Milano–Bicocca*, PhD Course in Harmonic Analysis. The course was held jointly with G. Travaglini and M. G. Kuhn. Info at <https://sites.google.com/view/jointphd/courses>. 7 hours (out of 28 hours).
- Fall 2019 **Teaching Assistant**, *Università degli Studi di Milano–Bicocca*, Course: Matematica I - undergraduate students in Environmental Sciences. 30 hours.
- Fall 2019 **Teaching Assistant**, *Università degli Studi di Milano–Bicocca*, Course: Analisi Matematica - undergraduate students in Computer Sciences. 20 hours.

- Spring 2019 **Teaching Assistant**, *Università degli Studi di Milano*,
Course: Analisi Complessa - undergraduate and master students in Mathematics.
22 hours.
- Spring 2019 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 4 - undergraduate students in Mathematics.
30 hours.
- Fall 2018 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 1 - undergraduate students in Mathematics.
40 hours.
- Spring 2018 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 4 - undergraduate students in Mathematics.
30 hours.
- Fall 2017 **Teaching Assistant**, *Università degli Studi di Milano*,
Course: Istituzioni di Matematica - undergraduate students in Chemistry.
30 hours.
- Fall 2017 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 1 - undergraduate students in Mathematics.
40 hours.
- Spring 2017 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 4 - undergraduate students in Mathematics.
30 hours.
- Fall 2016 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 1 - undergraduate students in Mathematics.
40 hours.
- Fall 2016 **Teaching Assistant**, *Politecnico di Milano*,
Course : Analisi Matematica 2 - undergraduate students in Computer Engineering.
40 hours.
- Spring 2016 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 2 - undergraduate students in Physics.
40 hours.
- Spring 2016 **Teaching Assistant**, *Politecnico di Milano*,
Course: Analisi Matematica 2 - undergraduate students in Physics Engineering.
50 hours.
- Fall 2015 **Teaching Assistant**, *Politecnico di Milano*,
Course: Analisi Matematica 2 - undergraduate students in Computer Engineering.
40 hours.
- Spring 2015 **Teaching Assistant**, *Università di Milano–Bicocca*,
Course: Matematica - undergraduate students in Sociology.
26 hours.
- Spring 2015 **Teaching Assistant**, *Politecnico di Milano*,
Course: Analisi Matematica 2 - undergraduate students in Civil Engineering.
48 hours.
- Fall 2014 **Teaching Assistant**, *Politecnico di Milano*,
Course: Analisi Matematica 2 - undergraduate students in Computer Engineering.
40 hours.

- Fall 2014 **Tutor**, *Università degli Studi di Milano*,
Course: Analisi Matematica 1 - undergraduate students in Mathematics.
40 hours.
- Fall 2013 **Teaching Assistant**, *Università degli Studi di Bergamo*,
Course: Analisi Matematica 2 - undergraduate students in Civil Engineering.
20 hours.
- Fall 2013 **Teaching Assistant**, *Politecnico di Milano*,
Course: Analisi Matematica 1 - undergraduate students in Computer Engineering.
40 hours.
- Fall 2011 **Teaching Assistant**, *Politecnico di Milano*,
Course: Analisi Matematica 1 - undergraduate students in Computer Engineering.
40 hours.
- Fall 2009 **Tutor**, *Università degli Studi di Milano*,
Project MINIMAT for high school students..
20 hours.

Other Activities

2016 – present Collaborator of Kangourou Italia for the mathematics competitions.

Last updated: May 30, 2021.



UNIVERSITY OF
ARKANSAS

J. William Fulbright College of Arts and Sciences
Department of Mathematical Sciences

Prof. Andy Seth Raich
Department of Mathematical Sciences
araich@uark.edu


Fayetteville, December 12, 2012

Dottorato di Ricerca in Matematica
Maggiorazione Estero 50%

Attestato di Frequenza

I hereby certify that Mr. Alessandro Monguzzi, alessandro.monguzzi@unimi.it has conducted reaserch in this Institution as a Ph. D. (Doctoral) student from October 27th to December 12th.

Sincerely,


Andrew Seth Raich

Dept of Mathematical Sciences
SCEN 301
1 University of Arkansas
Fayetteville AR 72701



UNIVERSITY OF
ARKANSAS

J. William Fulbright College of Arts and Sciences
Department of Mathematical Sciences

Prof. Andrew Seth Raich
Department of Mathematical Sciences
araich@uark.edu

Fayetteville, October 26th, 2012

Dottorato di Ricerca
Maggiorazione estero 50%

Attestato di Frequenza

I hereby certify that Mr. Alessandro Monguzzi, alessandro.monguzzi@unimi.it has conducted
research in this Institution as a PhD (Doctoral) Student

from September 3rd, 2012 to October 26th, 2012.

Sincerely,

Andrew Seth Raich

Dept of Mathematical Sciences
SCEN 301
1 University of Arkansas
Fayetteville AR 72701



UNIVERSITY OF ARKANSAS

Prof. Andy Seth Raich
Department of Mathematical Sciences
araich@uark.edu

J. William Fulbright College of Arts and Sciences
Department of Mathematical Sciences


Fayetteville, October 4, 2013

Dottorato di Ricerca in Matematica
Maggiorazione Estero 50%

Attestato di Frequenza

I hereby certify that Mr. Alessandro Monguzzi,
alessandro.monguzzi@unimi.it alessandro.monguzzi@unimi.it has conducted reaserch in this
Institution as a Ph. D. (Doctoral) student from August 24 ,2013 to October 4 ,2013.

Sincerely,


Andrew Seth Raich



UNIVERSITY OF
ARKANSAS

J. William Fulbright College of Arts and Sciences
Department of Mathematical Sciences

Prof. Andrew Seth Raich
Department of Mathematical Sciences
araich@uark.edu

Fayetteville, April 19, 2014

Dottorato di Ricerca in Matematica
Maggiorazione Estero 50%

Attestato di Frequenza

I hereby certify that Mr. Alessandro Monguzzi, alessandro.monguzzi@unimi.it
has conducted research in this Institution as a Ph. D. (Doctoral) student from March 6th, 2014 to
April 19th, 2014.

Sincerely,

Andrew Seth Raich