

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. 1 posto di Ricercatore a tempo determinato in tenure track (RTT) per il settore concorsuale 01/A3 - ANALISI MATEMATICA, PROBABILITA E STATISTICA MATEMATICA , settore scientifico-disciplinare MAT/05 - ANALISI MATEMATICA presso il Dipartimento di Matematica Federigo Enriques , (avviso bando pubblicato sulla G.U. n. 97 del 22/12/2023)
Codice concorso 5472

Nikolaos Chalmoukis

RESEARCH INTERESTS Complex analysis in one and several complex variables. Interpolating sequences for spaces of holomorphic functions. Operator theory on Hilbert spaces, functional calculi and von Neumann type inequalities. Potential theory on graphs and function spaces. Maximal functions and harmonic analysis, functional analysis, base theory for Hilbert spaces from the viewpoint of interpolation. Semi-groups of analytic functions in the unit disc.

POSITIONS **Department of Mathematics and Applications, University of Milano Bicocca**

Researcher of type A (RTDA), January 2023 - Present

Department of Mathematics and Computer Science, University of Saarland

Postdoctoral position, Humboldt foundation fellow, April 2022 - December 2022

Department of Mathematics, University of Bologna

Assegno di ricerca (Starting postdoctoral position in Mathematics and Applications in Sciences, Social Sciences and Engineering), March 2021 - February 2022

EDUCATION **Department of Mathematics, University of Bologna**

Ph.D., Mathematics, December 2020, University of Bologna

- Dissertation Topic: Interpolation Problems in Dirichlet Type Spaces
- Advisor: Nicola Arcozzi

Center for Mathematics, Lund University

Master of Science, Mathematics, September 2017, Lund University

- Dissertation Topic: Generalized Integration Operators on Hardy Spaces
- Advisor: Alexandru Aleman

Department of Mathematics, Aristotle University of Thessaloniki

Bachelor in Mathematics , November 2015, Aristotle University of Thessaloniki

- Dissertation Topic: The Bloch space
- Advisor: Aristomenis Siskakis

INVITED
TALKS

TBA - Spaces of analytic functions and their operators, Saarland University, May 2024

Shift operators and toral endomorphisms, Complex Analysis Seminar - Bench Math Session , Jagiellonian University, December 2023,

The exceptional sets of the Drury Arveson space, XXII Congresso dell'Unione Matematica Italiana (UMI), September 2023

Composition semigroups and Sarason's characterization of VMOA, International Workshop on Operator Theory and its Applications (IWOTA), special section: Hilbert function spaces in one and several complex variables , Helsinki, August 2023

Interpolating sequences for Complete Nevanlinna Pick spaces, Recent Advances in Function Spaces and Their Operators, Marrakesh, May 2023

The exceptional sets of the Drury-Arveson space, Journée d'Analyse Harmonique, Institut de Mathématiques de Marseille, December 2022

The exceptional sets of the Drury-Arveson space, Seminari d'anàlisi de Barcelona, UAB, November 2022

Exceptional sets for Hardy Sobolev spaces in several complex variables , International Workshop on Operator Theory and its Applications (IWOTA), special section of functional calculus and spectral constants, Krakow, September 2022

Interpolation by analytic functions in Dirichlet type spaces, New trends in complex and Fourier analysis and operator theory, September 2022

Exceptional sets for Hardy Sobolev spaces in several complex variables, Politecnico di Milano analysis seminar, July 2022

Semigroups of composition operator and Sarason's characterization of VMOA, Conference in honor of Nikolai Nikolski, Operators, Functions, Systems: Classical and Modern, June 2022

Exceptional sets for Hardy Sobolev spaces in several complex variables, CR Geometry and PDEs IX, Levico Terme, May 2022

Semigroups of composition operators on spaces of analytic functions, Research

Seminar Noncommutative and Functional Analysis, Saarland University, May 2022

Weighted dyadic Hardy inequalities, Geometric aspects of complex and harmonic analysis, U. of Bologna, January 2022

Interpolation by analytic functions in Sobolev spaces, Bruno Pini Mathematical Analysis Seminar, U. of Bologna, December 2021

Holomorphic semigroups and Sarason's characterization of vanishing mean oscillation, Complex and Harmonic Analysis and its applications, Saint Petersburg State University, November 2021

Hardy Sobolev spaces in several complex variables, BIRS-CMO Workshop, "Multivariable Operator Theory and Function Spaces in several Variables (Online)", August 2021.

Onto Interpolation for the Dirichlet space and for $H_1(D)$, Seminar in complex and harmonic analysis, Leonard Euler International Mathematical Institute in Saint Petersburg, February 2021

Totally null sets and capacity in Dirichlet type spaces, EIMI Seminar in Complex and Harmonic Analysis, November 2020

Random Interpolating sequences in Dirichlet type spaces, St.Petersburg Youth Conference on Probability and Mathematical Physics, December 2020.

Nevanlinna Pick Interpolation: A gentle Introduction, Insalate di Matematica, Università di Milano - Bicocca
https://drive.google.com/file/d/1rwvvVymepjrU_oMca8fw40ALiuKlQJG7/view

Random Interpolating sequences in Dirichlet spaces, 2TART : Operator Theory With its Applications, August 2020. Seminar available online at:
<https://www.youtube.com/watch?v=Aq49pT5BSjE>

Onto Interpolating sequences for the Dirichlet and Sobolev $W^{1,2}(D)$ spaces, Working group Eschmeier, Research seminar in functional analysis, June 2020

Random Interpolating sequences in Dirichlet spaces, OnLine seminar on complex analysis and applied topics, May 2020. Seminar available online at:
<https://www.youtube.com/channel/UCiRdqBeNxXbWaaftY-SN6mg/>

Random Interpolating Sequences in Dirichlet Type Spaces, Thessaloniki Analysis Seminar, Aristotle U. of Thessaloniki, December 2019.

Interpolation in the Dirichlet space on the unit disc, Analysis days in Piemonte, May 2019

Potential Theory on Trees, Thessaloniki Analysis Seminar, Aristotle U. of Thessaloniki, December 2018.

Onto Interpolation for the Dirichlet Space and $W^{1,2}$, Thessaloniki Analysis Seminar, Aristotle U. of Thessaloniki, September 2018.

Generalized integration operators on Hardy spaces, Analysis days in Piemonte, May 2018.

OTHER TALKS
AND SEMINARS

On an interpolation problem in spaces with the complete Pick property, XLII Convegno Armonica, Milano Bicocca, May 2023

The exceptional sets of the Drury Arveson space, University of Bologna, Regular seminar of the complex analysis lab, February 2023

Invariant capacities in the unit ball of \mathbb{C}^n and exceptional sets for Hardy Sobolev spaces, Second Congress of Greek Mathematicians SCGM-2022, July 2022

Exceptional sets for Hardy Sobolev spaces in several complex variables, First UMI meeting of PhD students, May 2022

Holomorphic semigroups and Sarason's characterization of vanishing mean oscillation, Focus Program on Analytic Function Spaces and their Applications, Fields Institute, September 2021

Holomorphic semigroups and Sarason's characterization of vanishing mean oscillation, communication in "Real and complex manifolds. The mathematical heritage of Edoardo Vesentini", June 2021.

Weighted dyadic Hardy inequalities, Convegno nazionale di analisi armonica, May 2021.

Random Interpolating Sequences in Dirichlet Spaces, CIRM, Marseille, "Interpolation in Spaces of Analytic Functions", November 2019.

Onto Interpolation for the Dirichlet Space and for $W^{1,2}$, IRP SAFAIS-2019, Workshop "Spaces of Analytic Functions: Approximation, Interpolation, Sampling", October 2019.

Onto Interpolation for the Dirichlet Space, Advanced course of operator theory and complex analysis, U. Paris-Est Marne-la-Vallée, France, June 2019.

Unions of onto interpolating sequences for the Dirichlet space, Advances course of operator theory and complex analysis, U. of Bologna, June 2018.

Unions of onto interpolating sequences for the Dirichlet space, Workshop on complex analysis and operator theory, Blanes, May 2018.

The prime number theorem and Riemann's zeta function, BaD Seminars, U. of Bologna, February 2018.

ORGANIZATION EXPERIENCE *Advanced Course of Operator Theory and Complex Analysis*, Local Organizer, U. of Thessaloniki, June 2023.

Advanced Course of Operator Theory and Complex Analysis, Local Organizer, U. of Bologna, June 2018.

Organization of the circle of seminars for PhD students and Post Doctoral Researchers "BaD Seminars"

<https://www.dm.unibo.it/seminari/mat/cycles/64>

Co-organiser and occasional speaker of the series of seminars "Complex Analysis Lab at UniBo"

<https://site.unibo.it/complex-analysis-lab/en>

TEACHING EXPERIENCE	Spring	2023	PhD Course: <i>Interpolation and sampling in holomorphic function spaces</i> , U. of Bologna (30 hours; together with N. Arcozzi)
	Fall	2021	Minicourse: <i>Interpolation by analytic functions</i> , St. Petersburg State University and Euler International Mathematical Institute (4 hours)
	Fall	2021	Teaching Assistant, Mathematics for Social Sciences, U. of Bologna, Course: Laurea in Economics, politics and social sciences (40 hours)
	Fall	2021	Teaching Assistant (In Italian), Analysis I, U. of Bologna, Course: Chemical and biochemical engineering (30 hours).
	Spring	2021	Teaching Assistant (In Italian), Calculus and elements of probability, U. of Bologna, Civil engineer department (30 hours).
	Fall	2019	Minicourse <i>An introduction to interpolating sequences in Reproducing Kernel Hilbert Spaces</i> , U. of Bologna. (6 hours) Lectures available on https://site.unibo.it/complex-analysis-lab/en/contents/videos .
	Fall	2018	Teaching Assistant (In Italian), Mathematical Analysis I, U. of Bologna, Civil engineer department (30 hours).

AWARDS AND FELLOWSHIPS	2023-2024	“Premio giovani talenti” (3rd Prize) from the University of Milano Bicocca
	2022-2024	Postdoctoral fellowship for junior researchers from the Alexander von Humboldt foundation
	2022	Kovalevskaya grant for participation in the International Congress of Mathematics ICM2022 (Unione Matematica Italiana) (Event cancelled)
	2017-2020	INdAM-DP-COFUND-2015 fellowship (INdAM Doctoral Programme in Mathematics and/or Applications Cofunded by Marie Skłodowska-Curie Actions)
	2016–2017	Fellowship from Alexander S. Onassis Public Benefit Foundation for my studies at Lund University
	2011-2015	Commendation for excellent performance during my studies in the department of mathematics of the Aristotle University of Thessaloniki
	2011–2012	Scholarship from IKY (Greek State Scholarships Foundation) for distinction in my studies in mathematics.
RESEARCH PROJECTS	2023 - 2024	Scientific coordinator of the INdAM-GNAMPA project “Function theory in several complex and quaternionic variables”, with number CUP_E53C22001930001 (2.500 euro)
	2022-2023	Member of the Research Project “Generalized Laplacians on continuous and discrete structures” funded by GNAMPA (Italian National Group for Mathematical Analysis, Probability and their Applications). Principal Investigator: Tommaso Bruno
	8/2021–12/2021	Grant from Ministry of Science and Higher Education of the Russian Federation, agreement No. 075-15-2019-1619.
	2021-2024	Member of the research group funded by the grant “2nd call for H.F.R.I.’s research projects to support faculty members & researchers” (165.000€) . Principal investigator: A. Siskakis, Aristotle University of Thessaloniki.
EXTENDED PROFESSIONAL TRAVEL	Sept. 2018	U. of Thessaloniki, Department of Mathematics, Greece
	Febr. 2020	Institut de Mathématiques de Bordeaux (IMB), Bordeaux, France
RELEVANT INFORMATION	Languages:	Greek (mother-tongue), English (fluent), Italian (fluent), French (beginner)
		Member of the INdAM group GNAMPA
		Reviewer for Mathematical Reviews (MathSciNet)

PEER-REVIEW
EXPERIENCE

Journals: Czechoslovak Math. J., Complex Anal. Oper. Theory.,
Rend. Circ. Mat. Palermo (2), Proc. Amer. Math. Soc.,
Constr. Approx., J. Math. Anal. Appl.,
Complex Var. Elliptic. Equ., Ann. Polon. Math.,
Demonstratio Math., J. Geom. Anal, Armenian J. Math,
Complex Anal. Oper. Theory

Thesis advisor: Co-advisor of the Master Thesis of Miriam Abbate, UNIBO (2023)

Data 15/01/2024, Luogo: Bologna