

PERSONAL INFORMATIONS

Arianna Travaglini



📍 Dipartimento di Ingegneria, Università degli Studi della Basilicata, Via dell'Ateneo Lucano 10, 85100, Potenza, Italy

✉ arianna.travaglini@unibas.it

🆔 <https://orcid.org/0000-0002-8228-2333>

WORK EXPERIENCES

12/01/2026: RESEARCH FELLOWSHIP

University of Perugia

Awardee of a Research Fellowship for collaboration on the project "Mathematical Methods and Models for Thermal Investigations on Nanofluids (M.I.T.N.)" – Department of Physics and Geology, University of Perugia.

SINCE MARCH 1, 2024: RESEARCH FELLOWSHIP

University of Basilicata

Recipient of a research grant within the framework of the Tech4You project to carry out research activities at the Department of Engineering, University of Basilicata.

Organization of the Mathematical Games Championships in the years 2023, 2024, and 2025

Bocconi University

Assignment to organize the semifinal of the International Mathematical Games Championships in the years 2023, 2024, and 2025, hosted in Perugia.

Teaching assignment within the project "EDUCATIONAL PATHS FOR ENHANCING EMPLOYMENT - SKILLS INTERVENTION 2" - 2022

Consorzio

Futuro (Ecipa Umbria)

Teaching assignment within the project "EDUCATIONAL PATHS FOR ENHANCING EMPLOYMENT - SKILLS INTERVENTION 2", intervention "BIOMEDICAL IMAGE ANALYST (IMAGE PROCESSING EXPERT)", in the training year "HEALTHY UMBRIA" for the needs of the organization CONSORZIO FUTURO.

Tutor of the "I Lincei per la Scuola" Foundation – s.y. 2021/2022 and 2025/2026

Perugia Pole

Participation, as a tutor, in the activities of the project "I Lincei per la Scuola", of the National Academy of the Lincei, Perugia pole.

University tutor a.y. 2020/2021 – 2021/2022 – 2022/2023 - 2023/2024 – 2024/2025**University of Perugia**

Tutorial activity for the course “Mathematical Analysis I” for the Bachelor’s Degree in Civil and Environmental Engineering (Department of Civil and Environmental Engineering) and for the Bachelor’s Degree in Computer and Electronic Engineering (Department of Engineering), University of Perugia – for a total of 100 hours per year.

EDUCATION AND TRAINING

July 2025

Summer School of Mathematics

CIME School “Modern Perspectives in Approximation Theory: Graphs, Networks, quasi-interpolation and Sampling Theory”

Awarded a full grant to attend the CIME School “Modern Perspectives in Approximation Theory: Graphs, Networks, quasi-interpolation and Sampling Theory”, held in Cetraro, Italy, from July 21st to July 25th, 2025

February 28, 2025

PhD degree with *praise*

Final defense of the PhD program in Mathematics, Computer Science, and Statistics – curriculum “Mathematics”, held at the Department of Mathematics and Computer Science “U. Dini” of the University of Florence. The degree was awarded *with praise*.

July-August 2022

Summer School of Mathematics

Scuola Matematica Interuniversitaria (SMI)

Courses attended:

1. Functional Analysis (Prof. Nicola Arcozzi)
2. Numerical Analysis (Prof. Carla Manni)

Since 2022

Subject expert for the following courses:

- Analisi Matematica I, Bachelor's Degree Course in Civil and Environmental Engineering, University of Perugia;
- Analisi Matematica I, Bachelor's Degree Course in Computer and Electronic Engineering, University of Perugia;
- Teoria dell'Approssimazione, Master's Degree Course in Mathematics, University of Perugia;

- Applied Image and Signal Processing, Master's Degree Course in Mathematics, University of Perugia;

Nov. 1, 2021 – Oct., 31 2024

PhD in Mathematics, Computer Science, and Statistics,
University of Florence, University of Perugia, INdAM (awarded
with a full grant)

PhD candidate in the Doctoral Program in Mathematics, Computer
Science, and Statistics – curriculum “Mathematics”

Supervisor: Prof. Gianluca Vinti

2019 – 2021

Master's Degree
University of Perugia

Master's Degree in Mathematics (LM-40), curriculum “Matematica per le
Applicazioni Industriali e Biomediche”

Supervisor: Prof. Gianluca Vinti

Final grade: 110/110 cum laude

Graduation date: 29/10/2021

2016 – 2019

Bachelor's Degree
University of Perugia

Bachelor's degree in mathematics (L-35)

Supervisor: Prof. Patrizia Pucci

Final grade: 105/110

Graduation date: 18/07/2019

2011 – 2016

Scientific High School Diploma

Istituto Omnicomprensivo “Ciampoli – Spaventa”, Atessa (CH)

Grade: 100/100 cum laude

Language skills

Italian

Native Language

Other languages

English

COMPREHENSION		SPEAKING		WRITING
Listening	Reading	Interaction	Speaking Production	Writing Production
Advanced	Advanced	Advanced	Advanced	Advanced
FIRST Certificate in English (Council of Europe Level B2) - Cambridge English Language Assessment, May 2016				

Digital skills

SELF EVALUATIONS				
Word processing	Operating systems	Spreadsheets	Presentation Software	Programming language
Advanced	Advanced	Advanced	Advanced	C, C++
Advanced knowledge of Microsoft Office, GNU Octave, LaTeX language, MatLab, GIMP, and others				
Certificate ICT – European Computer Driving Licence (ECDL), 2013				

Driving Licence

Driving license B

Awards and prizes

- **UMI-TAA award (2025):** winner of the UMI-TAA award which consists of grants awarded to young mathematicians who have made significant contributions to the field of Approximation Theory and Applications.
<https://umi-taa.sites.dmi.unipg.it/premi.html>
- **Workshop Chair:** Workshop Chair Certificate of Appreciation in The International Conference on Computational Science and Its Applications (ICCSA 2025), Istanbul, Turkey

- **Workshop Chair:** Workshop Chair Certificate of Appreciation in The International Conference on Computational Science and Its Applications (ICCSA 2023), Athens, Greece.
- **Study award 2018:** "Study award in favor of the children of BCC bank shareholders, who are distinguished for results in state high schools. "Date: 06/05/2018
- **Enhancement of excellence:** Cash prize from the Istituto Nazionale di Documentazione, Innovazione e Ricerca Educativa (INDIRE) for having obtained a score of 100 with honors in the state exam (year 2016), available for consultation in the national register of excellence: <https://www.indire.it/eccellenze/>

Conferences and seminars as invited speaker

- **CONFERENCE 30/06/2025-03/07/2025:** The International Conference on Computational Science and Its Applications (ICCSA 2025), Istanbul, Turkey – participation as **invited speaker** in the workshop "Mathematical Methods for Image Processing and Understanding 2025".
- **CONFERENCE 16/12/2024-20/12/2024:** 14th AIMS Conference - On Dynamical Systems, Differential Equations and Applications, Abu Dhabi, Arab Emirates, participation as **invited speaker** in the special session SS5: Nonlinear Differential Problems on Flat and Curved Structures: Variational and Topological Methods.
- **SEMINAR 18/09/2024:** seminar titled "Approximation by means of nonlinear sampling Durrmeyer operators and biomedical applications", held at the University of Palermo, Italy – **invited speaker**.
- **SEMINAR 05/06/2024:** seminar titled "Nonlinear sampling Durrmeyer operator and applications", held at the University of Basilicata, Potenza, Italy – **invited speaker**.
- **WORKSHOP 06/12/2023:** final Workshop on the Project Fondazione Perugia M.I.R.A. "Metodiche di Imaging non invasivo mediante angiografia OCT sequenziale per lo studio delle Retinopatie degenerative dell'Anziano" – **invited speaker**.
- **CONFERENCE 11/07/2023 - 13/07/2023:** 17th International Conference on Applied Mathematics and Computer Science, Cluj-Napoca, Romania - participation as **invited speaker**.

Conferences and seminars as speaker

- **CONFERENCE 27/01/2026-30/01/2026:** Approximation: Theory, Methods and Applications ATMA2026, Rende, Italy - participation as **speaker**.
- **CONFERENCE 02/07/2025-05/07/2025:** 3rd International Conference: Constructive Mathematical Analysis, Konya, Turkey - participation as **speaker**.
- **CONFERENCE 17/07/2024-21/07/2024:** ICATA 2024 - International Conference on Approximation Theory and its Applications, Sibiu, Romania - participation as **speaker**.
- **CONFERENCE 13/06/2024-14/06/2024:** II meeting UMI for doctoral

students, Napoli, Italy - participation as **speaker**.

- [CONFERENCE 04/09/2023-09/09/2023](#): XXII Congresso dell'Unione Matematica Italiana, Pisa, Italy - participation as **speaker**.
- [CONFERENCE 03/07/2023-06/07/2023](#): The International Conference on Computational Science and Its Applications (ICCSA 2023), Athens, Greece - participation as **speaker**.
- [CONFERENCE 18/06/2023-22/06/2023](#): International Conference on Approximation Theory and Applications, Cetraro, Italy, Cetraro, Italy - participation as **speaker**.
- [CONFERENCE 05/06/2023-09/06/2023](#): FA&QP 2023 - International Workshop on Functional Analysis and Quantum Physics: interplay, challenges and perspectives, Palermo, Italy - participation as **speaker**.
- [CONFERENCE 18/01/2023-20/01/2023](#): ATMA2023- Approximation: Theory, Methods and Applications, Padova, Italy – participation as **speaker**.
- [SEMINAR 15/11/2022-16/11/2022](#): RITA PhD Days – seminar sessions dedicated to PhD students of the RITA research group (Research Italian network on Approximation) - participation as **speaker**.
- [CONFERENCE 20/10/2022-22/10/2022](#): ICOMSS'2022-International E-Conference on Mathematical and Statistical Science: A Selcuk Meeting, Turkey – participation as **speaker**.
- [CONFERENCE 05/07/2022-08/07/2022](#): FAATNA20>22-Functional Analysis, Approximation Theory and Numerical Analysis, Matera, Italy – participation as **speaker**.
- [CONFERENCE 10/11/2021-12/11/2021](#): ATMA2021- Approximation: Theory, Methods and Applications, Reggio Calabria, Italy – participation as **speaker**.

Participation in conferences and seminars

- [CONFERENCE 05/12/2024-06/12/2024](#): WAMA2024-Workshop on Approximation Methods and Applications, On the occasion of Michele Campiti's 65th birthday, Department of Mathematics, Università degli Studi di Bari Aldo Moro, Bari, Italy – participation.
- [SEMINAR 27/11/2024](#): Seminars of Cesari Center: “La matematica del futuro: non solo AI ma tanto altro | Rischi e prospettive”, held by Prof. Vincenzo Vespri, Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation
- [SEMINAR 16/10/2024](#): Seminars of Cesari Center: “Reti sociali e mobilità umana: dalle interazioni faccia-a-faccia alla scala urbana”, held by Prof. Ciro Cattuto, Department of Physics and Geology, Università degli Studi di Perugia, Italy – participation
- [CONFERENCE 23/07/2024-26/07/2024](#): 2ND AMS-UMI INTERNATIONAL JOINT MEETING, Palermo, Italy – participation.
- [SEMINAR 03/07/2024](#): Seminars of Cesari Center: “Modelling hillslope and overland flow interactions under rain”, held by Prof. Dino

Torri, Department of Agricultural, Food and Environmental Sciences, Università degli Studi di Perugia, Italy - participation.

- **CONFERENCE 11/06/2024-14/06/2024:** ATMA2024-Approximation: Theory, Methods and Applications, Lecce, Italy – participation.

- **SEMINAR 15/05/2024:** Seminars of Cesari Center: “La torsione finita di cilindri iperelastici”, held by Prof. Angelo Marcello Tarantino, Department of Civil and Environmental Engineering, Università degli Studi di Perugia, Italy - participation.

- **SEMINAR 31/03/2024:** Seminars of Cesari Center: “Meccanismi di scelte sociali”, held by Prof. Achille Basile, Department of Economics, Università degli Studi di Perugia, Italy - participation.

- **SEMINAR 31/01/2024:** Seminars of Cesari Center: “La modellazione matematica nella rappresentazione del corpo umano e nella medicina di precisione: esempi di analisi biomeccanica in ambito ortopedico, respiratorio e cardiovascolare”, held by Prof. Alberto Audenino, Department of Engineering, Università degli Studi di Perugia, Italy - participation.

- **SEMINAR 29/11/2023:** Seminars of Cesari Center: “Models and Algorithms for the Computational Medicine of the Heart”, held by Prof. Luca Dede', Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation

- **SEMINAR 06/07/2023:** UMI Centenary Seminars (2022–2024) – Scientific Meeting in Messina, University of Messina, Italy, online participation via the UMI YouTube channel.

- **SEMINAR 15/06/2023:** Modular approximation in convergence spaces, held by Prof. Walter Kozłowski from University of New South Wales (Australia), Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation.

- **SEMINAR 27/05/2023:** UMI Centenary Seminars (2022–2024) – Scientific Meeting in Bologna, University of Bologna, Italy, online participation via Zoom platform.

- **SEMINAR 30/03/2023:** UMI Centenary Seminars (2022–2024) – Scientific Meeting in Pescara, “G. D'Annunzio” University of Chieti-Pescara, Italy, participation.

- **SEMINAR 26/01/2023:** UMI Centenary Seminars (2022–2024) – Scientific Meeting in Milan, University of Milano-Bicocca, online participation via Zoom platform.

- **SEMINAR 13/12/2022-15/12/2022:** Around linear positive operators, held by Prof. Gumrah Uysal dell'Università di Karabuk (Turkey), Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation.

- **SEMINAR 24/11/2022:** UMI Centenary Seminars (2022–2024) – Scientific Meeting in L’Aquila, University of L’Aquila, online participation via Zoom platform.
- **SEMINAR 29/09/2022:** UMI Centenary Seminars (2022–2024) – Scientific Meeting in Turin, Oratorio San Filippo Neri, online participation via the UMI YouTube channel.
- **CONFERENCE 20/09/2022-24/09/2022:** SMART2022-Third International Conference on Subdivision, Geometric and Algebraic Methods, Isogeometric Analysis and Refinability in Italy, Rimini, Italy – participation.
- **SEMINAR 23/06/2022:** UMI Centenary Seminars (2022–2024) – Scientific Meeting in Naples, University of Naples Federico II, online participation via Zoom platform.
- **CONFERENCE 23/05/2022-27/05/2022:** Conference celebrating 100 years of UMI and 800 years of the University of Padua, Padua, Italy – participation.
- **SEMINAR 16/05/2022:** Seminar titled “Un modello matematico per la ricostruzione e l’enhancement di immagini digitali e sue applicazioni in ambito medico”, held by Prof. Gianluca Vinti, Università della Campania “Luigi Vanvitelli”, online participation via Microsoft Teams.
- **SEMINAR 06/05/2022:** Seminar titled “Uno sguardo dentro le immagini: il ruolo dei modelli e degli algoritmi matematici, seminario di divulgazione scientifica”, held by Prof. Gianluca Vinti, Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation.
- **SEMINAR 22/04/2022:** Seminar titled “M.C. Escher e l’arte di catturare l’infinito, seminario di divulgazione scientifica”, held by Prof. Francesco Fumagalli, Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation.
- **CONFERENCE 31/03/2022:** 100 Years of UMI in Bologna, a working day dedicated to mathematics and the relationship between the Italian Mathematical Union and the University of Bologna, online via Zoom platform.
- **SEMINAR 25/03/2022:** Seminar titled “Dinamiche collettive e formazione di pattern in sistemi di reazione-diffusione su reti complesse, seminario di divulgazione scientifica”, held by Dr. Francesca Di Patti, Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation.
- **SEMINAR 14/03/2022:** Seminar titled “La mappa di Eschaton, seminario di divulgazione scientifica”, held by Prof. Nicola Ciccoli e Marinella Manicardi, Department of Mathematics and Computer Science,

Università degli Studi di Perugia, Italy – participation.

- **SEMINAR 28/02/2022**: Seminar titled “Information potential for some probability distributions”, held by Prof. Ana Maria Acu, Lucian Blaga University of Sibiu (Romania), Department of Mathematics and Computer Science, Università degli Studi di Perugia, Italy – participation.
- **CONFERENCE 20/06/2021**: 8th European Congress of Mathematics - 8ECM, Portoroz, Slovenia - participation.
- **CONFERENCE 18/06/2021**: Workshop on PDEs and Applications, online participation via Microsoft Teams.
- **CONFERENCE 29/05/2021**: Workshop on Analysis and Applications, online participation via Microsoft Teams.
- **CONFERENCE 28/05/2021**: Scientific Talks of the Italian Mathematical Union, online participation via Zoom platform.
- **CONFERENCE 14/05/2021**: First working day of the UMI group "Approximation Theory and Applications," online participation via Microsoft Teams.
- **CONFERENCE 14/04/2021**: Dante e le Discipline del Quadrivio, online participation via YouTube.
- **WORKSHOP 26/03/2021**: Eredità di Lamberto Cesari nella costruzione di nuove sinergie scientifiche, online participation via Microsoft Teams .
- **CONFERENCE 19/03/2021**: IOWAT 2021 - International Online Workshop on Approximation Theory, online participation via Zoom Platform.
- **CONFERENCE 27/11/2020**: Colloquium INDAM 2020, online participation via YouTube.

Organization of Conferences and Workshops

- Member of the **local organizing committee** of the conference “17th International Conference on Integral Methods in Science and Engineering”, July 20 – July 24, 2026, University of Basilicata, Matera (Italy).
- Member of the **organizing committee** of the workshop “Mathematical Methods for Image Processing and Understanding 2026” within the ICCSA 2026 Conference, June 30 – July 3, 2026, Braga (Portugal).
- Member of the **organizing committee** of the workshop “Mathematical Methods for Image Processing and Understanding 2025” within the ICCSA 2025 Conference, June 30 – July 3, 2025, Istanbul (Turkey).
- Member of the **organizing committee** of the workshop “Mathematical

Research groups and funding sources affiliated with

- INdAM GNAMPA Group (Gruppo Nazionale per l'Analisi Matematica, la Probabilità e le loro Applicazioni).
- RITA Member (Research Italian network on Approximation).
- UMI Approximation Theory and Applications (TAA) Group.

Participation in Research Projects

- **Since 2025** - Project GNAMPA 2026: "VEL.SAT. - VELOCità di convergenza e SATurazione per operatori generati da distribuzioni" - Coordinator: Prof. Mirella Cappelletti Montano.
- **Since 2025** - Project Ma.Me.Mo.Bi.A.: "Mathematical Methods and Models for Biomedical Applications" - Project financed by National Recovery and Resilience Plan PNRR-III-C9-2022-I8.
- **Since 2024** - Project Tech4You: "Metodi di approssimazione per la misura della qualità del software" - Scientific coordinator: Prof. Vita Leonessa within the Research and Innovation Program titled "Tech4You – Technologies for climate change adaptation and quality of life improvement".
- **2023-2024** - Project GNAMPA 2024: "Ricostruzione di segnali, tramite operatori e frame, in presenza di rumore" - Coordinator: Dr. Rosario Corso.
- **Since 2023** - Fondazione Cassa di Risparmio di Perugia Project 2023: "La farmacia dei servizi: strumento di valorizzazione dei bisogni socio-assistenziali e diagnostici a livello territoriale in partnership con il Servizio Sanitario Nazionale (con particolare riferimento a quello della Usl Umbria 1)".
- **Since 2023** - Project "MiRA: Mixed Reality and AI Methodologies for Immersive Robotics", University of Perugia, University Research Fund 2022.
- **2022-2023** – GNAMPA Project 2022: "Enhancement e segmentazione di immagini mediante operatori di tipo campionamento e metodi variazionali" - Coordinatore: Prof. Gianluca Vinti.
- **Since 2022** - Progetto Me.T.A.B.I.: "Metodi di Teoria dell'Approssimazione e loro applicazioni in ambito Biomedico e Industriale" - Coordinator: Prof. Gianluca Vinti.
- **2022-2023** - Fondazione Cassa di Risparmio di Perugia Project - M.I.R.A. (2019): "Metodiche di Imaging non invasivo mediante angiografia OCT sequenziale per lo studio delle Retinopatie degenerative dell'Anziano" – Scientific Coordinator: Prof. Gianluca Vinti.

Methods for Image Processing and Understanding (MMIPU)" within the ICCSA 2023 Conference, July 3–6, 2023, Athens (Greece).