



Silvia Licciardi

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WORK EXPERIENCE

6 MAR 2023 – CURRENT Palermo, Italy

UNIVERSITY RESEARCH ASSISTANT UNIVERSITY OF PALERMO

Full time researcher at Department of Engineering. Topics: Deep learning, Applied Mathematics, Fractional Calculus.
Professor in Electrotechnics for MEDIT
Assistant in Mathematics lectures

1 FEB 2025 – 28 FEB 2026 Italy

RESEARCH COLLABORATION CONSERVATORY OF L'AQUILA

Incarico di Ricerca per Calcolo Scientifico Avanzato applicato a Spartiti Musicali per l'analisi di varianti d'autore.

27 JUL 1998 – CURRENT Rome, Italy

EMPLOYED AT THE MINISTRY OF THE INTERIOR FLUTE AND PICCOLO PLAYER IN THE POLICE BAND (AND IT)

I have been an employee of the Ministry of the Interior since 1998. For 14 years I have been a flutist and octave player in the Police Band. After obtaining scientific titles, I moved on to the role of IT. From 2023 I am on leave as winner of an RTDA at the University of Palermo

10 APR 2019 – 31 DEC 2022 Rome, Italy

INDIVIDUAL RESEARCH FELLOWSHIP ENEA RESEARCH CENTER FRASCATI

Post-doc Researcher in Applied Mathematics

8 SEP 2019 – 8 SEP 2020 L'Aquila, Italy

RESEARCH COLLABORATION UNIVERSITY OF L'AQUILA

Winner of the call "*Modelli di diffusione in conduttori nel dominio del tempo*" in the "Analyst" project

EDUCATION AND TRAINING

11 DEC 2023 – CURRENT Italy

NATIONAL SCIENTIFIC QUALIFICATION FOR THE SECOND-LEVEL PROFESSOR IN NUMERICAL ANALYSIS ASN

PH.D. IN MATHEMATICS AND COMPUTER SCIENCE University of Catania

9 SEP 2011 – 13 MAY 2013 Rome, Italy

MASTER OF II LEVEL IN SCIENTIFIC CALCULUS University of Rome La Sapienza

Palermo, Italy

DEGREE ON MATHEMATICHS (OLD ORDER) University of Palermo

10 SEP 1988 – 20 OCT 1995 Caltanissetta, Italy

DEGREE ON FLUTE Caltanissetta's School of Music

1 SEP 2014 – 20 JUL 2017 Roma and Catania, Italy

TUTOR IN GEOMETRY AND MATHEMATICS Rome La Spaienza and Catania

1 JAN 2024 – CURRENT Palermo, Italy

VARIOUS UNIVERSITY COURSES (MATHEMATICS - MATLAB - ELECTROTECHNICS) University of PAlemro

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **DIGITAL SKILLS**

Mathematica | Matlab | Deep learning/Neural networks | Deep Learning - AI - ANN - DNN | Advance knowledge in Machine Learning and Deep learning | Parallel computing (OpenMP) | Strong knowledge of parallel programming (MPI and threads) | Python | Microsoft Office | Microsoft Word | Microsoft Powerpoint | Microsoft Excel | Latex

● **CONFERENCES AND SEMINARS**

4 DEC 2024 – 5 DEC 2024 Online Symposium

Symposium on Geometry, Applied Mathematics and Applications in Biology

Talk : “Deep Learning Architectures for Classification and Regression. A Mathematical Point of View”

17 SEP 2024 – 18 SEP 2024 Lecco, Italy

RTSI 2024 (Res. Tech. Soc. Ind)

16 SEP 2024 – 16 SEP 2024 Gaeta (LT)

NAMAS-24, Numerical Analysis & Modelling in Applied Sciences

Talk: “Fractional Calculus and Applications. Novel Approaches”,

4 SEP 2024 – 7 SEP 2024 Ankara (Turkey)

ATSF 2024, Approximation Theory and Special Function

Talk: “Umbral Calculus, Hypergeometric Functions and Applications”,

4 SEP 2024 – 7 SEP 2024 Ankara (Turkey),

ATSF 2024, Approximation Theory and Special Function

Chair of Special Session on Special Function

10 JUN 2024 – 10 JUN 2024 Webinar

"Neural Network Architectures and Magnetic Hysteresis, overview and comparisons" for PRIN project ADDMAG-2024

29 JAN 2024 – 31 JAN 2024 Naples, Italy

Umbral Images: Math in the Mirror. Fractional Calculus and Applications" at Calcolo Scientifico e Modelli Matematici alla Ricerca delle Cose Nascoste Attraverso le Cose Manifeste

13 NOV 2023 – 15 NOV 2023 Hanoi, Vietnam

Deep Learning and Energy Context”, 1st Asia Meeting on Environment and Electrical Engineering

Talker and Chair of the session Smart Section Integration

21 NOV 2022 – 22 NOV 2022 Tilburg, NL

8) "Umbral Calculus and New Trigonometries", invited speaker, Symposium "Square Bamboos and the Geometree"

15 OCT 2019 – 15 OCT 2019 Prague (Czech)

"Umbral Calculus, Methods and Applications"

Write here the description...Czech Technical University in Prague, Department of Mathematics inside a time of postdoc in 2019

11 NOV 2018 – 15 NOV 2018 Krakow, Poland

11) "Umbral Fractional Calculus and Physical Applications" at "2nd International Symposium on Operational Methods in Fractional Dynamics"

Invited Speaker.

5 JUL 2018 – 7 JUL 2018 Sbai, La Sapienza, Rome

"Umbral Fractional Calculus and Applications" and "Umbral Calculus: a Different Mathematical Language",

Invited speaker for 2 different seminars

18 JUN 2020 – 20 JUN 2020 Budapest, Hungary

"Umbral Fractional Calculus and Applications", Ecmi 2018

15 DEC 2017 – 15 DEC 2017 Sbai, La Sapienza, Rome

16) "Umbral Calculus, Mittag-Leffler and Fractional Schroedinger Equation" , "Meeting on Fractional Derivatives",

6 NOV 2016 – 10 NOV 2016 Krakow, Poland

17) "Theory of Hermite Calculus" at "Operational Methods in Fractional Dynamics" Conference

Invited speaker,

16 OCT 2016 – 22 OCT 2016 Nizhny Novgorod (Russia)

Meeting on a collaborative research/work project Enea Frascati (RM).

Invited at Institute of Applied Physics of the Russian Academy of Sciences in Nizhny Novgorod (Russia) for a meeting on a collaborative research/work project Enea Frascati (RM).

● **PUBLICATIONS**

List of Magazine Publications

Given the volume of publications, I send a summary file. I reserve the right to provide originals if requested.

● **COMMUNICATION AND INTERPERSONAL SKILLS**

Member of Mensa, High IQ Society

Sign Language, I Level

● **REFEREE AND GUEST EDITORS**

1 JAN 2017 – CURRENT

Referee for Many Journals - Guest editor of MDPI - Special Issue

§ Referee for *Electrical Engineering*, Springer Nature SNAPP, from 2024.

§ Referee for *Qeios*, 2023.

§ Editorial Board member of *Frontiers*, Athena International Publishing, from 2023.

§ Editorial Board member of *Growth and Form*, Athena International Publishing, from 2023.

§ Editorial Board member of *Journal of Mathematics and System Science* from 2018.

§ Guest editor of the Special Issue "Umbral Calculus, Special functions and Symmetry. Applications of Different Mathematical Languages", MDPI, Symmetry, 2023.

§ Referee for *The Journal of Analysis*, Springer Nature, from 2020.

§ Referee for *International Journal of Applied and Computational Mathematics*, Springer Nature, from 2019.

§ Referee for *International Journal of Applied and Computational Mathematics (IACM)*, from 2019.

§ Referee for *MDPI* from 2018.

§ Referee for *Mathematical Reviews*, a division of the American Mathematical Society, from 2018.

§ Referee for *Advances in Applied Clifford Algebras (AACA)*, from 2018.

§ Referee for *Online Electronic Integer Sequences*, from 2018.

§ Referee for *Note di Matematica*, from 2017.

● NETWORKS AND MEMBERSHIPS

1 JAN 2024 – CURRENT Italy

Member of GNCS

12 JAN 2014 – 31 DEC 2023 Italy

Member of GNFM

1 SEP 2024 – CURRENT Palermo

Affiliated to Indam

1 JAN 2024 – CURRENT Italy

Member of UMI (Unione Matematici Italiani)

1 JAN 2024 – CURRENT Italy

Member of SIMAI

1 JAN 2025 – CURRENT

Member of European Woman in Mathematics

1 JAN 2025 – CURRENT

Member of EMS

● MANAGEMENT AND LEADERSHIP SKILLS

"Group and umbral methods for dissemination and transport models"

External expert in the project "Group and umbral methods for dissemination and transport models"
Research plan 2016-2019, University of Catania, Dip. of Mathematics and Informatics.

" High-depth electromagnetic, optical and acoustic antennas of field penetration in media with losses "

External expert in the project " High-depth electromagnetic, optical and acoustic antennas of field penetration in media with losses " , research plan 2017-2019, University of Rome, La Sapienza, Dip. of Computer Engineering, Electronics and Telecommunications.