CURRICULUM VITAE
di **ELVIRA ZAPPALE**

General Data

Name	Elvira Zappale
Date of birth	2 August 1975
Place of birth	Salerno
Citizenship	Italian
Position	Associate professor
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Studies and Italian ccientific qualification

Laurea in Matematica	16/7/1997	Università di Salerno	vecchio ordinamento (cum laude)
Ph.D (legal duration of studies:4 years)	29/1/2002	Università di Napoli 'Federico II'	Ph.D in Mathematics
Abilitazione Scientifica Nazionale	05/2013	MIUR	Associate professor in SC 01/A3 (Analisi Matematica, Probabilità e Stati-stica Matematica) (SSD MAT/05 - Analisi Matematica)
Abilitazione Scientifica Nazionale	7/7/2021	MIUR	Full professor of SC 01/A3 (Analisi Matematica, Probabilità e Stati-stica Matematica) (SSD MAT/05 - Analisi Matematica)

Incarichi accademici

Periodo	Istituzione	Descrizione

Actual position From 2/11/2020	Sapienza - Università di Roma	*Associate Professor* - SSD MAT/05 - Analisi Matematica Dipartimento di Scienze di Base e Applicate per l'Ingegneria [1]
From 1/1/2004 to 1/11/2020	Università di Salerno	*Permanent researcher* - Settore scientifico-disciplinare MAT/05 - Analisi Matematica
From 1/11/2001 ato 31/12/2003	Università di Salerno	Research fellowship at Dipartimento di Ingegneria dell' Informazione e Matematica Applicata SSD MAT/05.
From 25/9/2000 to 10/6/2001	Carnegie Mellon University	Research Scholar at Center for Nonlinear Analysis.
From 1/11/1997 to 31/10/2001	Università di Napoli 'Federico II'	Ph. D student.
From 7/1997 to 9/1997	Università di Napoli 'Federico II'	Research fellowship for Trimestre Intensivo INdAM.

- From 17/2/2012: 'Investigator'- Fundaçao para a Ciencia e a Tecnologia, Ministerio da Educaçao e Ciencia, Portugal.

- From 2015 to 2019 and from 2021: External member of CIMA Research Center at Universidade de Evora, Portugal.

- From 1/1/2004: responsibility of courses in MATH/03 A (previously MAT/05) at Engineering faculties of Universities of Salerno and Roma 'La Sapienza'.

- 4 courses for Ph.D students at ricerca Universitá di Salerno, Universidade Nova de Lisboa and 'Sapienza' Università di Roma.

- Supervisors of Ph.D students, post doc and master students.

- Lecturer for PCTO courses, offered by Sapienza, Universitá di Roma.

- Referee for journals and reviewer for Zentralblatt and Math. Rev.

- member of several committees for recruitment.

- organizer of more than 30 seminar.

- 20 seminars given at Italian and foreigner institutions.

- speaker in more than 50 conference and workshops in Italy and abroad.

- invited speaker in several conferences and workshops and many minisymposia in Italy and abroad.

- invited in more than 20 institutions for research collaborations.

- organizers of many conferences and workshops.

- participants in several national and international research projects, few times as P.I.

Research projects in the past five years

- member of INdAM–GNAMPA projsec*Composite Materials and Microstructures* (2024)

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[1]Facoltà di Ingegneria Civile ed Industriale

- PI of the INdAM–GNAMPA project *Prospettive nelle scienze dei materiali: modelli variazionali, analisi asintotica e omogeneizzazione* (2023)

- member of the project PRIN2022 "Mathematical Modeling of Heterogeneous Systems".

- member of INdAM–GNAMPA project *Analisi variazionale di modelli non-locali nelle scienze applicate* (2020)

- twice participant in the Sapienza's research projects and once P.I.

Publications of the past 5 years

References

[1] Krömer S., Kruzík M., Morandotti M., Zappale E., Measure-Valued Structured Deformations, Journal of Nonlinear Science, 2024 **34**, n. 6, 100 doi=10.1007/s00332-024-10076-w,

[2] Bertazzoni G., Eleuteri M., Zappale E., Approximation of L^∞ functionals with generalized Orlicz norms Annali di Matematica Pura ed Applicata, 2024 doi=10.1007/s10231-024-01511-6.

[3] Fotso Tachago J., Nnang H., Tchinda F., Zappale E., (Two-scale) $W^1 L^\Phi$-gradient Young measures and homogenization of integral functionals in Orlicz–Sobolev spaces, Journal of Elliptic and Parabolic Equations, 2024, doi=10.1007/s41808-024-00294-4.

[4] Ribeiro A. M., Zappale E., Revisited convexity notions for L^∞ variational problems, Revista Matematica Complutense, 2024, doi=10.1007/s13163-024-00499-0.

[5] D'Elia L., Eleuteri M., Zappale E., Homogenization of supremal functionals in vectorial setting (via L^p approximation) Analysis and Applications, **22**(7), 2024, 1255-1302, DOI 10.1142/S0219530524500179.

[6] Eleuteri M., Prinari F., Zappale E., Asymptotic analysis of thin structures with point dependent energy growth. Mathematical Models and Methods in the Applied Science, 2024, 34(8), 1401–1443.

[7] Barroso A. C., Matias J., Zappale E. Global Method for Relaxation for Multi-levelled Structured Deformations, NODEA, 2024, 31(4), **50**.

[8] Fotso Tachago J., Nnang H. and Zappale, E. Reiterated Homogenizazion of Nonlinear Degenerate Elliptic Operators with non standard growth. Differential and Integral Equations **37**, (9/10), 717-752, 2024, DOI: 10.57262/die037-0910-717

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[11] Kreisbeck C., Ritorto A., Zappale, E. Cartesian convexity as the key notion in the variational existence theory for nonlocal supremal functionals. Nonlinear Analysis, Theory, Methods and Applications 225,113111, 2022.

[12] Amar M., Matias J., Morandotti M., Zappale E. Periodic homogenization in the context of structured deformations. Zeitschrift fur Angewandte Mathematik und Physik 73(4),173 2022.

[13] Barroso A.C., Matias J., Morandotti M., Owen D.R., Zappale E. The Variational Modeling of Hierarchical Structured Deformations, Journal of Elasticity, 2022, DOI 10.1007/s10659-022-09961-w.

[14] Barroso A.C., Matias J., Zappale E. Relaxation for an optimal design problem in $BD(\Omega)$. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 153(3), 2023, 721–763.

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[17] Matias J., Morandotti M., Owen D. R., Zappale, E. Upscaling and spatial localization of non-local energies with applications to crystal plasticity, Math. Mech. Solids, **26**, 2021, n. 7, 963–997.

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[23] Ferreira R., Zappale E. Bending-torsion moments in thin multi-structures in the context of nonlinear elasticity, Communications on Pure and Applied Analysis, **19**, n. 3, 2020, 1747–1793, doi=10.3934/cpaa.2020072.

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Conference Proceedings

[25] Fotso Tachago J., Nnang H., Zappale E. Relaxation of periodic and nonstandard growth integrals by means of two-scale convergence, Integral methods in science and engineering, 123–131, Birkhäuser/Springer, Cham. 2019.

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[27] Barroso A.C., Matias J., Zappale E. Some Optimal Design Problems with Perimeter Penalisation. In: Beirão da Veiga, H., Minhós, F., Van Goethem, N., Sanchez Rodrigues, L. (eds) Nonlinear Differential Equations and Applications. PICNDEA 2022. CIM Series in Mathematical Sciences, vol 7. Springer, Cham. 2024, https://doi.org/10.1007/978-3-031-53740-0 1

[28] Gargiulo G., Samoilenko V., Zappale E. Power Law Approximation Results for Optimal Design Problems. In: Beirão da Veiga, H., Minhós, F., Van Goethem, N., Sanchez Rodrigues, L. (eds) Nonlinear Differential Equations and Applications. PICNDEA 2022. CIM Series in Mathematical Sciences, vol 7. Springer, Cham. 2024, https://doi.org/10.1007/978-3-031-53740-0 6

Submitted papers

- Carvalho G., Matias J., Zappale E. Asymptotic analysis of a clamped thin multidomain allowing for fractures and discontinuities

- Ferreira R., Matias J., Zappale E. Junction in a thin multi-domain for nonsimple grade two materials in BH,

- Fotso Tachago J., Gargiulo G., Nnang H., Zappale E. Homogenization of non-convex integral energies with Orlicz growth via periodic unfolding

- Samolienko V, Samolienko Y, Zappale E., Nonlinear WKB method, asymptotic soliton-like solutions of variable coefficients Korteweg–de Vries equations with singular perturbation and Rankine–Hugoniot-type conditions.