SHORT CV

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Dr. Fulvio Parisi is an Associate Professor of Structural Engineering in the Department of Structures for Engineering and Architecture at the University of Naples Federico II, Italy. He received his BSc and MSc cum laude in Structural Engineering in 2005 and 2007, and his Ph.D. in Seismic Risk in 2011 from University of Naples Federico II. Since 2016, he is also Associate Researcher of the National Research Council of Italy (CNR).

His engagement in education programmes includes his positions as Coordinator of MSc Programme in Forensic Engineering at the University of Naples Federico II and Board Member of the International Doctoral Program in Civil and Environmental Engineering at the University of Perugia, Italy. He teaches the courses entitled "*Design and Retrofit of Masonry Structures*", "*Diagnosis and Repair of Structural Failures*", "*Structures for Hydraulic and Road Facilities*", and "*Structural Safety and Failures*". In the Doctoral Programme in Structural & Geotechnical Engineering and Seismic Risk at University of Naples Federico II, he taught the courses entitled "*Performance-Based Earthquake Engineering of Masonry Buildings*", "*Robustness of Structures*" and "*Disaster Resilience assessment of Urban Networks*". In 2024, he has been the Chair and Lecturer of the Summer School in Structural Robustness and Resilient Infrastructure against Extreme Hazards. He was supervisor of 12 PhD students (including a visiting PhD student from Brazil), 3 postdocs, and over 60 MSc and BSc students.

Dr. Parisi is Editor of Construction and Building Materials and is Associate Editor of the ASCE Journal of Performance of Constructed Facilities, Advances in Civil Engineering and Innovative Infrastructure Solutions. He is also Editorial Board Member of six international journals. He was a scientific committee member or mini-symposium organizer in more than 15 international conferences.

His research activity encompasses, but is not limited to, structural design, assessment, robustness, disaster risk, resilience, structural health monitoring, and rehabilitation of civil infrastructure with masonry, concrete, and composite materials. He carried out both theoretical and experimental studies in about 30 research projects, coordinating major tasks on buildings, bridges, and cultural heritage constructions.

He authored over 250 papers in peer-reviewed international journals and conference proceedings, 1 book, 12 book chapters, 35 scientific reports, 2 software packages for structural analysis of masonry buildings, and 3 databases for experimental data selection on masonry properties. He edited 2 books and 6 special issues of peer-reviewed international journals. His research findings were awarded or recognised by several institutions/journals and were implemented in several guidelines for structural engineering. In 2020, he was included in the list of World's Top 2% Scientists according to the scientific impact of his research activity. Since 2021, he has been included in the list of World's Top 2% Scientists for both career-long and single-year impacts.

He is an active member of several international working groups, technical committees of standard bodies, and international associations, including the Fédération Internationale du Béton (fib), the European Association for Earthquake Engineering (EAEE), Comité Européen de Normalisation (CEN), National Research Council of Italy (CNR), and UNI – Ente Italiano di Normazione (Italian National Standards Body).

In 2019, Prof. Parisi founded FORENSICS s.r.l. (FORensic ENgineering ServICeS), which is a spin-off company of the University of Naples Federico II where he is Head of Civil and Risk Engineering services. In the same year, he created two research labs named STONE Lab (*Structural analysis & experimental Testing*

Of New & Existing masonry constructions) and RISE Lab (*Research & Innovation in multi-hazard Safety & resilience of civil Engineering systems*).

List of publications in the last 5 years

[1] Meoni A., D'Alessandro A., Mattiacci M., García-Macías E., Saviano F., Parisi F., Lignola G.P., Ubertini F. (2024). *Structural performance assessment of full-scale masonry wall systems using operational modal analysis: Laboratory testing and numerical simulations*. Engineering Structures, 2024, 304, 117663.

[2] Losanno D., Galano S., Parisi F., Pecce M.R., Cosenza E. (2024). *Experimental Investigation on Nonlinear Flexural Behavior of Post-Tensioned Concrete Bridge Girders with Different Grouting Conditions and Prestress Levels*. Journal of Bridge Engineering, 29(3): 04023121.

[3] Losanno D., Galano S., Parisi F. (2024). *Influence of strand rupture on flexural behavior of reduced-scale prestressed concrete bridge girders with different prestressing levels*. Engineering Structures, 301: 117358.

[4] Silvestri F., de Silva F., Piro A., Parisi F. (2024). *Soil-structure interaction effects on out-of-plane seismic response and damage of masonry buildings with shallow foundations*. Soil Dynamics and Earthquake Engineering, 177: 108403.

[5] da Rosa Ribeiro L., Machado Kroetz H., Parisi F., Beck A.T. (2024). *Optimal risk-based design of reinforced concrete beams against progressive collapse*. Engineering Structures, 300: 117158.

[6] Pulatsu B., Gonen S., Funari M.F., Parisi F. (2023). *Spatial stochastic D-RBA and limit equilibrium analysis of unreinforced masonry pier-spandrel structures*. Engineering Structures, 296: 116897.

[7] Galano S., Losanno D., Miluccio G., Parisi F. (2023). Multidimensional nonlinear numerical simulation of post-tensioned concrete girders with different prestressing levels. Structural Concrete, 24(6): 7021-7042.

[8] Ding J.-Y., Feng D.-C., Brunesi E., Parisi F., Wu G. (2023). *Efficient seismic fragility analysis method utilizing ground motion clustering and probabilistic machine learning*. Engineering Structures, 294: 116739.

[9] Michelini E., Ferretti D., Miccoli L., Parisi F. (2023). Autoclaved aerated concrete masonry for energy efficient buildings: State of the art and future developments. Construction and Building Materials, 402: 132996.

[10] Pulatsu, B., Funari, M.F., Malomo, D., Gonen, S., Parisi, F. (2023). Seismic assessment of URM pier spandrel systems via efficient computational modeling strategies. Bulletin of Earthquake Engineering, 21(12): 5573-5596.

[11] Miluccio G., Losanno D., Parisi F., Cosenza E. (2023). *Fragility analysis of existing prestressed concrete bridges under traffic loads according to new Italian guidelines*. Structural Concrete, 24(1): 1053-1069.

[12] Meoni A., D'Alessandro A., Saviano F., Lignola G.P., Parisi F., Ubertini F. (2023). *Strain Monitoring and Crack Detection in Masonry Walls under In-Plane Shear Loading using Smart Bricks: First Results from Experimental Tests and Numerical Simulations*. Sensors, 23(4): 2211.

[13] Pulatsu B., Gonen S., Parisi F. (2023). *Effect of precompression and material uncertainty on the in-plane behavior of URM pier–spandrel systems*. Buildings, 13: 203, DOI: 10.3390/buildings13010203.

[14] Scalvenzi M., Ravasini S., Brunesi E., Parisi F. (2023). *Progressive collapse fragility of substandard and earthquake-resistant precast RC buildings*. Engineering Structures, 275: 115242.

[15] Losanno D., Ravichandran N., Parisi F. (2023). *Seismic fragility models for base-isolated unreinforced masonry buildings with fiber-reinforced elastomeric isolators*. Earthquake Engineering and Structural Dynamics, 52(2): 308-334.

[16] Pulatsu B., Gonen S., Parisi F., Erdogmus E., Tuncay K., Funari M.F., Lourenço P.B. (2022). *Probabilistic approach to assess URM walls with openings using discrete rigid block analysis (D-RBA)*. Journal of Building Engineering, 61: 105269.

[17] Saviano F., Parisi F., Lignola G.P. (2022). *Material aging effects on the in-plane lateral capacity of tuff stone masonry walls: a numerical investigation*. Materials and Structures, 55(7): 198.

[18] Feng D.-C., Zhang M.-X., Brunesi E., Parisi F., Yu J., Zhou Z. (2022). *Investigation of 3D effects on dynamic progressive collapse resistance of RC structures considering slabs and infill walls*. Journal of Building Engineering, 54: 104421.

[19] Losanno D., Ravichandran N., Parisi F. (2022). *Seismic fragility of base-isolated single-storey unreinforced masonry buildings equipped with classical and recycled rubber bearings in Himalayan regions*. Journal of Building Engineering, 45: 103648.

[20] Scalvenzi M., Gargiulo S., Freddi F., Parisi F. (2022). *Impact of seismic retrofitting on progressive collapse resistance of RC frame structures*. Engineering Failure Analysis, 131: 105840.

[21] Colasanti V., Fenu L., Parisi F. (2022). *Numerical simulation of shaking table test on an adobe masonry building through nonlinear macro-element analysis*. International Journal of Masonry Research and Innovation, 7(5): 504-524.

[22] Miluccio G., Losanno D., Parisi F., Cosenza E. (2021). *Traffic-load fragility models for prestressed concrete girder decks of existing Italian highway bridges*. Engineering Structures, 249: 113367.

[23] Cassese P., Balestrieri C., Fenu L., Asprone D., Parisi F. (2021). *In-plane shear behaviour of adobe masonry wallets strengthened with textile reinforced mortar*. Construction and Building Materials, 306: 124832.

[24] Feng D.-C., Shi H.-R., Parisi F., Brunesi E., Wang C.-L. (2021). *Efficient numerical model for progressive collapse analysis of prestressed concrete frame structures*. Engineering Failure Analysis, 129: 105683.

[25] Losanno D., Ravichandran N., Parisi F. (2021). *Comparative assessment of finite element macro-modelling approaches for seismic analysis of non-engineered masonry constructions*. Bulletin of Earthquake Engineering, 19(13): 5565-5607.

[26] La Mendola L., Oddo M.C., Papia M., Pappalardo F., Pennisi A., Bertagnoli G., Di Trapani F., Monaco A., Parisi F., Barile S. (2021). *Performance of a new stress sensor imbedded in mortar joints of masonry elements*. Construction and Building Materials, 297: 123764.

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[28] Ravasini S., Belletti B., Brunesi E., Nascimbene R., Parisi F. (2021). *Nonlinear dynamic response of a precast concrete building to sudden column removal*. Applied Sciences, 11: 599.

[29] Losanno D., Ravichandran N., Parisi F., Calabrese A., Serino G. (2021). *Seismic performance of a low-cost base isolation system for unreinforced brick masonry buildings in developing countries*. Soil Dynamics and Earthquake Engineering, 141: 106501.

[30] Feng D.-C., Xiong C.-Z., Brunesi E., Parisi F., Wu G. (2021). *Numerical simulation and parametric analysis of precast concrete beam-slab assembly based on layered shell elements*. Buildings, 11(1): 7.

[31] Brunelli A., de Silva F., Piro A., Parisi F., Sica S., Silvestri F., Cattari S. (2021). *Numerical simulation of the seismic response and soil-structure interaction for a monitored masonry school building damaged by the 2016 central Italy earthquake*. Bulletin of Earthquake Engineering, 19: 1181-1211.

[32] Scalvenzi M., Parisi F. (2021). *Progressive collapse capacity of a gravity-load designed RC building partially collapsed during structural retrofitting*. Engineering Failure Analysis, 121: 105164.

[33] Galasso C., Pregnolato M., Parisi F. (2021). *A model taxonomy for flood fragility and vulnerability assessment of buildings*. International Journal of Disaster Risk Reduction, 53: 101985.

[34] Mucedero G., Brunesi E., Parisi F. (2020). *Nonlinear material modelling for fibre-based progressive collapse analysis of RC framed buildings*. Engineering Failure Analysis, 118: 104901.

[35] Russo P., De Marco A., Parisi F. (2020). *Assessment of the damage of hydrogen pipelines explosions on people and buildings*. Energies, 13(9): 5051.

[36] Parisi F., Scalvenzi M. (2020). *Progressive collapse assessment of gravity-load designed European RC buildings under multi-column loss scenarios*. Engineering Structures, 209: 110001.

[37] Piro A., de Silva F., Parisi F., Scotto di Santolo A., Silvestri F. (2020). *Effects of soil-foundation-structure interaction on fundamental frequency and radiation damping ratio of historical masonry building sub-structures*. Bulletin of Earthquake Engineering, 18(4):1187-1212.