CURRICULUM VITAE di:

Nominativo	Anna Marina Pandolfi

Posizione accademica

Macrosettore:	PE8
Settore Concorsuale:	ICAR/08
Settore Scientifico Disciplinare:	ICAR/08
Qualifica:	Professore Ordinario
Anzianità nel ruolo:	6 anni
Sede Universitaria:	Politecnico di Milano
Struttura di afferenza (dipartimento o altro)	Dipartimento di Ingegneria Civile ed Ambientale

Posizioni ricoperte precedentemente nel medesimo ateneo o in altri

Periodo	**Fascia**	**Ateneo**
1995-2001	Ricercatore	Politecnico di Milano`
2001-2017	Professore Associato	Politecnico di Milano`

Pubblicazioni Scientifiche

n. progr.	anno	Descrizione pubblicazione
		Vedi elenco in calce.

Titoli [1]

[1] In via esemplificativa sono indicate alcune voci

- Direzione o partecipazione a comitati di direzione di riviste Scopus/WOS o classificate da ANVUR, nonché di collane editoriali, enciclopedie e trattati di riconosciuto prestigio nel settore:
  - Editor in Chief di Meccanica.

- Partecipazione al collegio dei docenti nell'ambito di dottorati di ricerca accreditati dal Ministero:
  Civil, Environmental and Mechanical Engineering, Doctoral School faculty member, Department of Civil, Environmental and Mechanical Engineering, University of Trento, 2023—
  Models and Mathematical Methods for Engineering, Doctoral School faculty member, Dipartimento di Matematica, Politecnico di Milano, 2011--2017.
  Structural, Earthquake and Geotechnical Engineering, Doctoral School faculty member, Dipartimento di Ingegneria Strutturale, Politecnico di Milano, 2000--2013.

- Incarichi di insegnamento o di ricerca (fellowship) presso qualificati atenei e istituti di ricerca esteri o sovranazionali:
  - Visiting Associate, California Institute of Technology, 1996-2023

- partecipazione come relatore a convegni di carattere scientifico nazionali o internazionali:
  - 13 Plenary lectures, 20 key-note lectures, piu' di 50 invited talks.

- direzione o partecipazione a gruppi di ricerca, nazionali o internazionali, legati a università ovvero a qualificate istituzioni pubbliche o private:
  - Partecipazione a diversi PRIN dal 1998 al 2010, mai come PI.

- partecipazione a comitati di redazione di riviste Scopus/WOS o classificate da ANVUR, nonché di collane editoriali, enciclopedie e trattati di riconosciuto prestigio nel settore:
  - Associate Editor di International Journal of Fracture, Scientific Reports, Journal of Theoretical, Computational, and Applied Mechanics, Journal of the Mechanics of Soft Tissues, Modeling and Artificial Intelligence in Ophthalmology, molti altri in precedenza.

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data

29 Settembre 2023

firma

List of Publications

International Journal Publications

[1] A. Pandolfi, L. Stainier, and M. Ortiz. An optimal-transport finite-particle method for mass diffusion. *Computer Methods in Applied Mechanics and Engineering*, 416:116385, 2023.

[2] C. Mazzotta, A. Pandolfi, and M. Ferrise. Progressive high fluence epithelium-on accelerated corneal crosslinking: a novel corneal photo-dynamic therapy for early progressive keratoconus. *Frontiers in Medicine*, 10:1198246, 2023.

[3] A. Montanino, S. van Overbeeke, and A. Pandolfi. Modelling the biomechanics of laser corneal refractive surgery. *Journal of the Mechanical Behavior of Biomedical Materials*, 145:1–11, 2023.

[4] A. Pandolfi, M. L. De Bellis, A. Gizzi, and M. Vasta. Modelling the degeneration of the collagen architecture in a microstructural model of the human cornea. *Mathematics and Mechanics of Solids*, 28(1):196–207, 2023.

[5] M. L. De Bellis and A. Pandolfi. Applications of a micro-structured brittle damage model to laboratory tests on rocks. *International Journal of Fracture*, 238(1):57–69, 2022.

[6] I. Simonini, A. Ni Annaidh, and A. Pandolfi. Numerical estimation of stress and refractive power maps in healthy and keratoconus eyes. *Journal of the Mechanical Behavior of Biomedical Materials*, 131:105252, 2022.

[7] M. Werner, A. Pandolfi, and K. Weinberg. A multi-field model for charging and discharging of lithium-ion battery electrodes. *Continuum Mechanics and Thermodynamics*, 33(3):661–685, 2021.

[8] D. Briccola, M. Cuni, A. De Juli, M. Ortiz, and A. Pandolfi. Experimental validation of the attenuation properties in the sonic range of metaconcrete containing two types of resonant inclusions. *Experimental Mechanics*, 61:515–532, 2021.

[9] A. Pandolfi, K. Weinberg, and M. Ortiz. A comparative accuracy and convergence study of eigenerosion and phase-field models of fracture. *Computer Methods in Applied Mechanics and Engineering*, 386:1–15, 2021.

[10] F. Boschetti, D. Conti, E. M. Soriano, C. Mazzotta, and A. Pandolfi. Experimental in-vitro investigation on Epi-Off-Crosslinking on porcine corneas. *PLOS One*, 16:e0249949:1–16, 2021.

[11] A. Gizzi, M. L. De Bellis, M. Vasta, and A. Pandolfi. Diffusion-based degeneration of the collagen reinforcement in the pathologic human cornea. *Journal of Engineering Mathematics*, 127(3):1–10, 2021.

[12] D. Briccola and A. Pandolfi. Analysis on the dynamic wave attenuation properties of metaconcrete considering a quasi-random arrangement of inclusions. *Frontiers in Materials*, 7:615189:1–14, 2021.

[13] A. Cornaggia, L. M. Clerici, M. Felizietti, T. Rossi, and A. Pandolfi. A numerical model of capsulorhexis to assess the relevance of size and position of the rhexis on the IOL decentering and tilt. *Journal of the Mechanical Behavior of Biomedical Materials*, 114:104170, 2021.

[14] A. Cornaggia, F. Boschetti, C. Mazzotta, and A. Pandolfi. Numerical investigation on Epi-Off-Crosslinking effects on porcine corneas. *Mechanics of Soft Materials*, 2:15:1–17, 2020.

[15] A. Montanino and A. Pandolfi. On the recovery of the unstressed configuration of the human cornea. *Journal for Modelling in Ophthalmology*, 2:11–33, 2020.

[16] A. Qinami, A. Pandolfi, and M. Kaliske. Variational eigenerosion for rate dependent plasticity in concrete modelling at small strain. *International Journal for Numerical Methods in Engineering*, 121:1388–1409, 2020.

[17] M. Angelillo, A. Montanino, and A. Pandolfi. An interpretation of the connection between collagen fibril microstructure and statically determined principal stress line distribution in the human cornea. *Journal of Biomechanical Engineering*, 142:051006–1–121, 2020.

[18] A. Pandolfi. Cornea modelling. *Eye & Vision*, 7(1):2, 2020.

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[20] D. Briccola, M. Tomasin, T. Netti, and A. Pandolfi. The influence of a lattice-like pattern of inclusions on the attenuation properties of metaconcrete. *Frontiers in Materials*, 6:1–11, 2019.

[21] A. Montanino, M. Angelillo, and A. Pandolfi. A 3d fluid-structure interaction model of the air puff test in the human cornea. *Journal of the Mechanical Behavior of Biomedical Materials*, 94:22–31, 2019.

[22] A. Pandolfi, A. Gizzi, and M. Vasta. A microstructural model of crosslink interaction between collagen fibrils in the human cornea. *Philosophical Transactions A*, 377:20180079, 2019.

[23] A. Scelsi, M. L. De Bellis, A. Pandolfi, G. Musso, and G. Della Vecchia. A step-by-step analytical procedure to estimate the in-situ stress state from borehole data. *Journal of Petroleum Science and Engineering*, 176:994–1007, 2019.

[24] M. Vasta, A. Gizzi, and A. Pandolfi. A spectral decomposition approach for the mechanical statistical characterization of distributed fiber-reinforced tissues. *International Journal of Nonlinear Mechanics*, 106:258–265, 2018.

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[28] A. Montanino, M. Angelillo, and A. Pandolfi. Modeling the air puff test in the cornea with a meshfree fluid-structure interaction approach. *Journal of the Mechanical Behavior of Biomedical Materials*, 77:205–216, 2018.

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[34] M. R. Romano, V. Romano, A. Pandolfi, C. Costagliola, and M. Angelillo. On the use of uniaxial tests on the sclera to understand the difference between emmetropic and highly myopic eyes. *Meccanica*, 52:603–612, 2017.

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Submitted to International Journals

[92] A. Montanino and A. Pandolfi. The inclusion of the epithelium in numerical models of the cornea. *Mechanics of Materials*, Submitted:1–20, 2023.

[93] A. Bonfanti and A. Pandolfi. A predictive model of UV-A-riboflavin crosslinking treatment on porcine corneas. *Philosophical Transactions A*, Under review:1–17, 2023.

Book Chapters

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Editorials

[101] A. Pandolfi. The 55th anniversary of meccanica. *Meccanica*, 56(12):2877–2878, 2021.

[102] A. Pandolfi and G. Vairo. Preface. *Journal for Modelling in Ophthalmology*, 2(2):1, 2018.

[103] S. Marfia, A. Pandolfi, and A. Reali. Preface. *Meccanica*, 53(6):1185–1186, 2018.

[104] A. Pandolfi and K. Weinberg. Foreword. *Journal of the Mechanics and Physics of Solids*, 93:1–3, 2016.

[105] K. Weinberg and A. Pandolfi. Preface. *Lecture Notes in Applied and Computational Mechanics*, 81:v–vi, 2016.

Milano, September 29, 2023 Signature