# List of Publications

## International Journal Publications

[1] J. Köry, P. Steward, N. Hill, X. Luo, and A. Pandolfi. A discrete-to-continuum model for the human cornea with application to keratoconus. *Royal Society Open Science*, Accepted:1–27, 2024.

[2] M. L. De Bellis, A. Gizzi, M. Vasta, and A. Pandolfi. Modelling the deterioration of the stiffness and of the collagen fibril distribution in a discrete model of the cornea microstructure. *International Journal of Nonlinear Mechanics*, 163:104736, 2024.

[3] A. Montanino and A. Pandolfi. The inclusion of the epithelium in numerical models of the cornea. *Biomechanics and Modeling in Mechanobiology*, In press:1–20, 2024.

[4] A. Pandolfi and M. Ortiz. Multiscale modeling and simulation of ductile fracture. *International Journal for Numerical Methods in Engineering*, 125(9):e7446, 2024.

[5] A. Bonfanti and A. Pandolfi. A predictive model of UV-A-riboflavin crosslinking treatment on porcine corneas. *Proceedings of the Royal Society of London A*, 479(2279):1–17, 2023.

[6] M. L. De Bellis, A. Gizzi, M. Vasta, and A. Pandolfi. A numerical model of the human cornea accounting for the fiber-distributed collagen microstructure. *Mathematics and Mechanics of Solids*, In press:1–17, 2023.

[7] 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.

[8] 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.

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[12] 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.

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[14] 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.

[15] 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.

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## Submitted to International Journals

[98] M. L. De Bellis, and A. Pandolfi. Continuum versus Micromechanical Modelling of Corneal Biomechanics. *Mechanics of Materials*, sumbitted, 2024.

## Book Chapters

[99] A. Pandolfi. Modeling of the human cornea. In D. Balzani, editor, *Encyclopedia of Continuum Mechanics*. Springer-Verlag GmbH Germany, 2018.

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## Editorials

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

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