

List of Publications

International Journal Publications

- [1] A. Montanino and A. Pandolfi. On the recovery of the unstressed configuration of the human cornea. *Journal for Modelling in Ophthalmology*, online first:1–22, 2020.
- [2] A. Qinami, A. Pandolfi, and M. Kaliske. Variational eigenosion for rate dependent plasticity in concrete modelling at small strain. *International Journal for Numerical Methods in Engineering*, 121:1388–1409, 2020.
- [3] 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.
- [4] A. Pandolfi. Cornea modelling. *Eye & Vision*, 7(1):2, 2020.
- [5] C. Mazzotta, G. Wollensak, F. Raiskup, A. Pandolfi, and E. Spoerl. The meaning of the demarcation line after riboflavin-UVA corneal collagen crosslinking. *Expert Review of Ophthalmology*, 14(2):115–131, 2019.
- [6] 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 - Mechanics of Materials*, 6:36, 2019.
- [7] 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.
- [8] 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.
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- [10] 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.
- [11] A. Montanino, A. Gizzi, M. Vasta, M. Angelillo, and A. Pandolfi. Modeling the biomechanics of the human cornea accounting for local variations of the collagen fibril architecture. *ZAMM Zeitschrift für Angewandte Mathematik und Mechanik*, 98:2122—2134, 2018.
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- [15] L. Fedeli, M. Ortiz, and A. Pandolfi. Geometrically-exact time-integration mesh-free schemes for advection-diffusion problems derived from optimal transportation theory and their connection with particle methods. *International Journal for Numerical Methods in Engineering*, 112:1175–1193, 2017.

- [16] A. Pandolfi, A. Gizzi, and M. Vasta. Visco-electro-elastic models of fiber-distributed active tissues. *Meccanica*, 52:3399–3415, 2017.
- [17] M. L. De Bellis, G. Della Vecchia, M. Ortiz, and A. Pandolfi. A multiscale model of distributed fracture and permeability in solids in all-round compression. *Journal of the Mechanics and Physics of Solids*, 104:12–31, 2017.
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Book Chapters

- [78] 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

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