

# Philip Wijesinghe

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

1,416  
citations

394286

19  
h-index

377752

34  
g-index

52  
all docs

52  
docs citations

52  
times ranked

1743  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Stem cell migration and mechanotransduction on linear stiffness gradient hydrogels. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5647-5652. | 3.3  | 370       |
| 2  | The emergence of optical elastography in biomedicine. Nature Photonics, 2017, 11, 215-221.   | 15.6 | 210       |
| 3  | Investigation of Optical Coherence Microelastography as a Method to Visualize Cancers in Human Breast Tissue. Cancer Research, 2015, 75, 3236-3245.  | 0.4  | 91        |
| 4  | Wide-field optical coherence micro-elastography for intraoperative assessment of human breast cancer margins. Biomedical Optics Express, 2016, 7, 4139.                                    | 1.5  | 82        |
| 5  | Diagnostic Accuracy of Quantitative Micro-Elastography for Margin Assessment in Breast-Conserving Surgery. Cancer Research, 2020, 80, 1773-1783.   | 0.4  | 54        |
| 6  | Optical Coherence Tomography of the Tympanic Membrane and Middle Ear: A Review. Otolaryngology - Head and Neck Surgery, 2018, 159, 424-438.  | 1.1  | 44        |
| 7  | Analysis of spatial resolution in phase-sensitive compression optical coherence elastography. Biomedical Optics Express, 2019, 10, 1496.   | 1.5  | 43        |
| 8  | Ultra-high-resolution optical coherence elastography. Optics Letters, 2016, 41, 21.  | 1.7  | 42        |
| 9  | Quantitative Compression Optical Coherence Elastography as an Inverse Elasticity Problem. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 277-287.                       | 1.9  | 39        |
| 10 | Computational optical palpation: a finite-element approach to micro-scale tactile imaging using a compliant sensor. Journal of the Royal Society Interface, 2017, 14, 20160878.            | 1.5  | 31        |
| 11 | Three-dimensional imaging of cell and extracellular matrix elasticity using quantitative micro-elastography. Biomedical Optics Express, 2020, 11, 867.                                     | 1.5  | 30        |
| 12 | Three-dimensional optical coherence micro-elastography of skeletal muscle tissue. Biomedical Optics Express, 2014, 5, 3090.  | 1.5  | 29        |
| 13 | Parametric imaging of viscoelasticity using optical coherence elastography. Physics in Medicine and Biology, 2015, 60, 2293-2307.  | 1.6  | 29        |
| 14 | In vivo volumetric quantitative micro-elastography of human skin. Biomedical Optics Express, 2017, 8, 2458.  | 1.5  | 27        |
| 15 | Light sheet microscopy with acoustic sample confinement. Nature Communications, 2019, 10, 669.   | 5.8  | 25        |
| 16 | Handheld probe for quantitative micro-elastography. Biomedical Optics Express, 2019, 10, 4034.   | 1.5  | 21        |
| 17 | Ultra-high-Resolution Optical Coherence Elastography Images Cellular-Scale Stiffness of Mouse Aorta. Biophysical Journal, 2017, 113, 2540-2551.  | 0.2  | 20        |
| 18 | Ultra-high-resolution optical coherence elastography through a micro-endoscope: towards in vivo imaging of cellular-scale mechanics. Biomedical Optics Express, 2017, 8, 5127.             | 1.5  | 20        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Optimal compressive multiphoton imaging at depth using single-pixel detection. <i>Optics Letters</i> , 2019, 44, 4981.  | 1.7 | 20        |
| 20 | Deciphering Cell-to-Cell Communication in Acquisition of Cancer Traits: Extracellular Membrane Vesicles Are Regulators of Tissue Biomechanics. <i>OMICS A Journal of Integrative Biology</i> , 2016, 20, 462-469. | 1.0 | 19        |
| 21 | Finger-mounted quantitative micro-elastography. <i>Biomedical Optics Express</i> , 2019, 10, 1760.  | 1.5 | 19        |
| 22 | Strain Tensor Imaging in Compression Optical Coherence Elastography. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019, 25, 1-12.  | 1.9 | 18        |
| 23 | Does artificial intelligence have a role in the IVF clinic?. <i>Reproduction and Fertility</i> , 2021, 2, C29-C34.  | 0.6 | 15        |
| 24 | Enhancing Resistance of Silk Fibroin Material to Enzymatic Degradation by Cross-Linking Both Crystalline and Amorphous Domains. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 2459-2468.             | 2.6 | 14        |
| 25 | Volumetric quantitative optical coherence elastography with an iterative inversion method. <i>Biomedical Optics Express</i> , 2019, 10, 384.  | 1.5 | 14        |
| 26 | Optical palpation for the visualization of tumor in human breast tissue. <i>Journal of Biophotonics</i> , 2019, 12, e201800180.   | 1.1 | 13        |
| 27 | Widefield light sheet microscopy using an Airy beam combined with deep-learning super-resolution. <i>OSA Continuum</i> , 2020, 3, 1068.   | 1.8 | 13        |
| 28 | Handheld volumetric manual compression-based quantitative microelastography. <i>Journal of Biophotonics</i> , 2020, 13, e201960196.   | 1.1 | 11        |
| 29 | Speckle-dependent accuracy in phase-sensitive optical coherence tomography. <i>Optics Express</i> , 2021, 29, 16950.  | 1.7 | 11        |
| 30 | Investigation of optical coherence micro-elastography as a method to visualize micro-architecture in human axillary lymph nodes. <i>BMC Cancer</i> , 2016, 16, 874.   | 1.1 | 9         |
| 31 | Emergent physics-informed design of deep learning for microscopy. <i>JPhys Photonics</i> , 2021, 3, 021003.   | 2.2 | 9         |
| 32 | Depth-encoded optical coherence elastography for simultaneous volumetric imaging of two tissue faces. <i>Optics Letters</i> , 2017, 42, 1233.   | 1.7 | 6         |
| 33 | Optical coherence tomography-based contact-indentation for diaphragm mechanics in a mouse model of transforming growth factor alpha induced lung disease. <i>Scientific Reports</i> , 2017, 7, 1517.              | 1.6 | 5         |
| 34 | Optical elastography on the microscale. , 2020, , 185-229.  |     | 3         |
| 35 | Sensitivity and resolution in optical coherence micro-elastography. , 2015, , .   |     | 2         |
| 36 | In vivo optical elastography: stress and strain imaging of human skin lesions. , 2015, , .  |     | 2         |

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|----|---|-----|-----------|
| 37 | Coherence function-encoded optical palpation. Optics Letters, 2021, 46, 4534.   | 1.7 | 2         |
| 38 | Quantifying Tissue Stiffness and the Effect of Nonlinearity using Compression Optical Coherence Elastography. , 2015, , .   |     | 1         |
| 39 | Mapping the mechanical heterogeneity of human breast tissue using optical coherence elastography. , 2016, , .   |     | 1         |
| 40 | Wide-field multiphoton imaging with TRAFIX. , 2019, , .   |     | 1         |
| 41 | Tissue Mechanics. , 2021, , 2-1-2-20.   |     | 1         |
| 42 | Quantitative optical coherence elastography as an inverse elasticity problem (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542 Td   |     | 0         |
| 43 | Computational optical palpation: micro-scale force mapping using finite-element methods (Conference) Tj ETQq1 1 0.784314 rgBT /Ove  |     | 0         |
| 44 | Parametric approaches to micro-scale characterization of tissue volumes in vivo and ex vivo: Imaging microvasculature, attenuation, birefringence, and stiffness (Conference Presentation). , 2016, , . |     | 0         |
| 45 | Towards intraoperative assessment of tumor margins in breast surgery using optical coherence elastography (Conference Presentation). , 2016, , .  |     | 0         |
| 46 | Compression optical coherence elastography for improved diagnosis of disease (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382  |     | 0         |
| 47 | Ultrahigh resolution optical coherence elastography using a Bessel beam for extended depth of field. , 2016, , .  |     | 0         |
| 48 | Optical coherence elastography for cellular-scale stiffness imaging of mouse aorta. , 2017, , .   |     | 0         |
| 49 | Transforming growth factor alpha expression in a transgenic mouse model impairs lung and diaphragm mechanics. , 2015, , .   |     | 0         |
| 50 | Optical Coherence Elastography Techniques. , 2021, , 1-34.  |     | 0         |