# Mohamed Shaat

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 64 papers | 1,460 citations | 304368 22 h-index | 344852 36 g-index |
| 64 all docs | 64 docs citations | 64 times ranked | 822 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | General nonlocal Kelvinâ€“Voigt viscoelasticity: application to wave propagation in viscoelastic media. Acta Mechanica, 2022, 233, 57-67. | 1.1 | 4 |
| 2 | Iterative Nonlocal Residual Elasticity. Springer Tracts in Mechanical Engineering, 2021, , 169-185. | 0.1 | 0 |
| 3 | Nonlocal Mechanics in the Framework ofÂtheÂGeneral Nonlocal Theory. Springer Tracts in Mechanical Engineering, 2021, , 95-122. | 0.1 | 1 |
| 4 | Review on nonlocal continuum mechanics: Physics, material applicability, and mathematics. Mechanics of Materials, 2020, 150, 103587. | 1.7 | 61 |
| 5 | Wettability and confinement size effects on stability of water conveying nanotubes. Scientific Reports, 2020, 10, 17167. | 1.6 | 4 |
| 6 | Nonreciprocal elasticity and the realization of static and dynamic nonreciprocity. Scientific Reports, 2020, 10, 21676. | 1.6 | 7 |
| 7 | A Micromorphic Beam Theory for Beams with Elongated Microstructures. Scientific Reports, 2020, 10, 7984. | 1.6 | 10 |
| 8 | On postbuckling mode distortion and inversion of nanostructures due to surface roughness. International Journal of Solids and Structures, 2020, 195, 28-42. | 1.3 | 2 |
| 9 | Metamaterials with Giant and Tailorable Nonreciprocal Elastic Moduli. Physical Review Applied, 2020, 14, . | 1.5 | 10 |
| 10 | Hinged-3D metamaterials with giant and strain-independent Poissonâ€™s ratios. Scientific Reports, 2020, 10, 2228. | 1.6 | 17 |
| 11 | Correlation between grain boundary evolution and mechanical properties of ultrafine-grained metals. Mechanics of Materials, 2020, 143, 103321. | 1.7 | 61 |
| 12 | Hybrid continuum-molecular modeling of fluid slip flow. Physics of Fluids, 2020, 32, . | 1.6 | 10 |
| 13 | Calibration of mass sensors for surface roughness of their micro-resonators. Sensors and Actuators A: Physical, 2019, 296, 302-315. | 2.0 | 5 |
| 14 | Modeling deformation of auxetic and non-auxetic polymer gels. Applied Mathematical Modelling, 2019, 74, 320-336. | 2.2 | 8 |
| 15 | On the equivalent shear modulus of composite metamaterials. Composites Part B: Engineering, 2019, 172, 506-515. | 5.9 | 26 |
| 16 | The dependence of accumulative roll bonded copper mechanical properties on grain sub-division, stacking faults, and lattice strains. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 756, 190-197. | 2.6 | 34 |
| 17 | Size-dependence of Young's modulus and Poisson's ratio: Effects of material dispersion. Mechanics of Materials, 2019, 133, 111-119. | 1.7 | 11 |
| 18 | Fluidity and phase transitions of water in hydrophobic and hydrophilic nanotubes. Scientific Reports, 2019, 9, 5689. | 1.6 | 20 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Mode localization phenomenon of functionally graded nanobeams due to surface integrity. International Journal of Mechanics and Materials in Design, 2019, 15, 245-270. | 1.7 | 9 |
| 20 | Influence of long-range interatomic and interlayer interactions on dispersion of acoustic waves by multilayer graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 108, 74-82. | 1.3 | 3 |
| 21 | Correction of local elasticity for nonlocal residuals: application to Eulerâ€“Bernoulli beams. Meccanica, 2018, 53, 3015-3035. | 1.2 | 12 |
| 22 | Influence of surface integrity on vibration characteristics of microbeams. European Journal of Mechanics, A/Solids, 2018, 71, 365-377. | 2.1 | 14 |
| 23 | Poisson's ratio effects on the mechanics of auxetic nanobeams. European Journal of Mechanics, A/Solids, 2018, 70, 8-14. | 2.1 | 13 |
| 24 | Buckling characteristics of nanocrystalline nano-beams. International Journal of Mechanics and Materials in Design, 2018, 14, 71-89. | 1.7 | 11 |
| 25 | Effects of surface integrity on the mechanics of ultra-thin films. International Journal of Solids and Structures, 2018, 136-137, 259-270. | 1.3 | 13 |
| 26 | Effects of processing force on performance of nano-resonators produced by magnetron sputtering deposition. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 104, 42-48. | 1.3 | 8 |
| 27 | Effects of processing conditions on microstructure and mechanical properties of equal-channel-angular-pressed titanium. Materials Science and Technology, 2018, 34, 1149-1167. | 0.8 | 15 |
| 28 | A reduced micromorphic model for multiscale materials and its applications in wave propagation. Composite Structures, 2018, 201, 446-454. | 3.1 | 31 |
| 29 | Modeling and characterization of particulate nanocomposite micro-beams under axial compressive loads. , 2017, , . | | 0 |
| 30 | Size dependent modeling of electrostatically actuated functionally graded nanobeams. , 2017, , . | | 0 |
| 31 | Free vibration analysis of cantilever open-hole composite plates. Meccanica, 2017, 52, 2819-2836. | 1.2 | 18 |
| 32 | Finite element modeling of nanoindentation for FG nanomaterials accounting for surface effects using user subroutine. , 2017, , . | | 0 |
| 33 | Reporting the sensitivities and resolutions of CNT-based resonators for mass sensing. Materials and Design, 2017, 114, 591-598. | 3.3 | 31 |
| 34 | A general nonlocal theory and its approximations for slowly varying acoustic waves. International Journal of Mechanical Sciences, 2017, 130, 52-63. | 3.6 | 35 |
| 35 | Nonlocal modeling and buckling features of cracked nanobeams with von Karman nonlinearity. Applied Physics A: Materials Science and Processing, 2017, 123, 1. | 1.1 | 13 |
| 36 | Frequency and mode veering phenomena of axially functionally graded non-uniform beams with nonlocal residuals. Composite Structures, 2017, 163, 280-292. | 3.1 | 35 |

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|---|---|---|---|
| 37 | New insights on the applicability of Eringenâ€™s nonlocal theory. International Journal of Mechanical Sciences, 2017, 121, 67-75. | 3.6 | 71 |
| 38 | Viscosity of Water Interfaces with Hydrophobic Nanopores: Application to Water Flow in Carbon Nanotubes. Langmuir, 2017, 33, 12814-12819. | 1.6 | 33 |
| 39 | Reporting the Fatigue Life of 316L Stainless Steel Locking Compression Plate Implants: The Role of the Femoral and Tibial Biomechanics During the Gait. Journal of Biomechanical Engineering, 2017, 139, . | 0.6 | 2 |
| 40 | Predictions of the frequencies of bending-torsion coupled laminated composite plates with discontinuities: Novel analytical modeling and experimental validation. Composite Structures, 2017, 180, 334-350. | 3.1 | 3 |
| 41 | Material structure and size effects on the nonlinear dynamics of electrostatically-actuated nano-beams. International Journal of Non-Linear Mechanics, 2017, 89, 25-42. | 1.4 | 21 |
| 42 | Reporting buckling strength and elastic properties of nanowires. Journal of Applied Physics, 2016, 120, . | 1.1 | 16 |
| 43 | Bridged single-walled carbon nanotube-based atomic-scale mass sensors. Applied Physics A: Materials Science and Processing, 2016, 122, 1. | 1.1 | 23 |
| 44 | Modeling and Vibration Characteristics of Cracked Nano-Beams Made of Nanocrystalline Materials. International Journal of Mechanical Sciences, 2016, 115-116, 574-585. | 3.6 | 56 |
| 45 | Modeling of mechanical resonators used for nanocrystalline materials characterization and disease diagnosis of HIVs. Microsystem Technologies, 2016, 22, 305-318. | 1.2 | 44 |
| 46 | Size dependent and micromechanical modeling of strain gradient-based nanoparticle composite plates with surface elasticity. European Journal of Mechanics, A/Solids, 2016, 58, 54-68. | 2.1 | 23 |
| 47 | Experimental, numerical, and analytical free vibration analyses of open-hole composite plates. , 2016, , . | | 1 |
| 48 | On a second-order rotation gradient theory for linear elastic continua. International Journal of Engineering Science, 2016, 100, 74-98. | 2.7 | 33 |
| 49 | Grains size and rigid rotations effects on the dynamics and pull-in instability of electrostatically-actuated beams. , 2016, , . | | 0 |
| 50 | Modeling of strain gradient-based nanoparticle composite plates with surface elasticity. , 2016, , . | | 0 |
| 51 | A new mindlin FG plate model incorporating microstructure and surface energy effects. Structural Engineering and Mechanics, 2015, 53, 105-130. | 1.0 | 10 |
| 52 | Pull-in instability of multi-phase nanocrystalline silicon beams under distributed electrostatic force. International Journal of Engineering Science, 2015, 90, 58-75. | 2.7 | 53 |
| 53 | Effects of grain size and microstructure rigid rotations on the bending behavior of nanocrystalline material beams. International Journal of Mechanical Sciences, 2015, 94-95, 27-35. | 3.6 | 39 |
| 54 | Physical and Mathematical Representations of Couple Stress Effects on Micro/Nanosolids. International Journal of Applied Mechanics, 2015, 07, 1550012. | 1.3 | 23 |

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|---|---|---|---|
| 55 | Modeling the material structure and couple stress effects of nanocrystalline silicon beams for pull-in and bio-mass sensing applications. International Journal of Mechanical Sciences, 2015, 101-102, 280-291. | 3.6 | 54 |
| 56 | Iterative nonlocal elasticity for Kirchhoff plates. International Journal of Mechanical Sciences, 2015, 90, 162-170. | 3.6 | 31 |
| 57 | Size-dependent bending analysis of Kirchhoff nano-plates based on a modified couple-stress theory including surface effects. International Journal of Mechanical Sciences, 2014, 79, 31-37. | 3.6 | 146 |
| 58 | Nonlinear-electrostatic analysis of micro-actuated beams based on couple stress and surface elasticity theories. International Journal of Mechanical Sciences, 2014, 84, 208-217. | 3.6 | 75 |
| 59 | Nonlinear size-dependent finite element analysis of functionally graded elastic tiny-bodies. International Journal of Mechanical Sciences, 2013, 77, 356-364. | 3.6 | 20 |
| 60 | Finite element analysis of functionally graded nano-scale films. Finite Elements in Analysis and Design, 2013, 74, 41-52. | 1.7 | 37 |
| 61 | Bending analysis of ultra-thin functionally graded Mindlin plates incorporating surface energy effects. International Journal of Mechanical Sciences, 2013, 75, 223-232. | 3.6 | 38 |
| 62 | Finite Element Analysis of the Deformation of Functionally Graded Plates under Thermomechanical Loads. Mathematical Problems in Engineering, 2013, 2013, 1-13. | 0.6 | 16 |
| 63 | Size-dependent analysis of functionally graded ultra-thin films. Structural Engineering and Mechanics, 2012, 44, 431-448. | 1.0 | 15 |
| 64 | A first-order shear deformation finite element model for elastostatic analysis of laminated composite plates and the equivalent functionally graded plates. Ain Shams Engineering Journal, 2011, 2, 53-62. | 3.5 | 25 |