# Bhushan Karihaloo

List of Publications by Year
in descending order



| 271 | 8,621 | 44069 | 60623 |
|---|---|---|---|
| papers | citations | 48 h-index | 81 g-index |

| 276 | 276 | 276 | 3823 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Nonlocal thermo-elastic constitutive relation of fibre-reinforced composites. Acta Mechanica Sinica/Lixue Xuebao, 2020, 36, 176-187. | 3.4 | 7 |
| 2 | A mechanism-based spatiotemporal non-local constitutive formulation for elastodynamics of composites. Mechanics of Materials, 2019, 128, 105-116. | 3.2 | 15 |
| 3 | Asymptotic Crack Tip Fields in Linear and Nonlinear Materials and Their Role in Crack Propagation. Physical Mesomechanics, 2019, 22, 18-31. | 1.9 | 9 |
| 4 | Flexural behavior of RC beams retrofitted with ultra-high strength concrete. Construction and Building Materials, 2018, 175, 815-824. | 7.2 | 61 |
| 5 | Analysis of the early-age cracking in concrete made from rapid hardening cement. Hormigon Y Acero, 2018, 69, 101-112. | 0.2 | 5 |
| 6 | Application of a self-compacting ultra-high-performance fibre-reinforced concrete to retrofit RC beams subjected to repeated loading. Sadhana - Academy Proceedings in Engineering Sciences, 2018, 43, 1. | 1.3 | 1 |
| 7 | Fatigue behaviour of damaged RC beams strengthened with ultra high performance fibre reinforced concrete. International Journal of Fatigue, 2018, 116, 659-668. | 5.7 | 63 |
| 8 | Simulation of self-compacting concrete in an L-box using smooth particle hydrodynamics. Magazine of Concrete Research, 2017, 69, 618-628. | 2.0 | 7 |
| 9 | Mechanical and fracture properties of a self-compacting version of CARDIFRC Mix II. Sadhana - Academy Proceedings in Engineering Sciences, 2017, 42, 795-803. | 1.3 | 4 |
| 10 | Simulation of the flow of self-compacting concrete in the V-funnel by SPH. Cement and Concrete Research, 2017, 100, 47-59. | 11.0 | 32 |
| 11 | Flexural Fatigue Behavior of a Self-Compacting Ultrahigh Performance Fiber-Reinforced Concrete. Journal of Materials in Civil Engineering, 2017, 29, . | 2.9 | 16 |
| 12 | Proportioning of self-compacting concrete mixes based on target plastic viscosity and compressive strength: Part II - experimental validation. Journal of Sustainable Cement-Based Materials, 2016, 5, 217-232. | 3.1 | 16 |
| 13 | Simulation of self-compacting concrete flow in the J-ring test using smoothed particle hydrodynamics (SPH). Cement and Concrete Research, 2016, 89, 27-34. | 11.0 | 25 |
| 14 | A new fatigue failure theory for multidirectional fiber-reinforced composite laminates with arbitrary stacking sequence. International Journal of Fatigue, 2016, 87, 294-300. | 5.7 | 43 |
| 15 | Influence of mix composition and strength on the fracture properties of self-compacting concrete. Construction and Building Materials, 2016, 110, 312-322. | 7.2 | 40 |
| 16 | A bridging law and its application to the analysis of toughness of carbon nanotube-reinforced composites and pull-out of fibres grafted with nanotubes. Archive of Applied Mechanics, 2016, 86, 361-373. | 2.2 | 8 |
| 17 | Proportioning of selfâ€“compacting concrete mixes based on target plastic viscosity and compressive strength: Part I - mix design procedure. Journal of Sustainable Cement-Based Materials, 2016, 5, 199-216. | 3.1 | 28 |
| 18 | Effect of cone lift rate on the flow time of self-compacting concrete. Magazine of Concrete Research, 2016, 68, 80-86. | 2.0 | 2 |

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| 19 | Estimation of the yield stress and distribution of large aggregates from slump flow test of self-compacting concrete mixes using smooth particle hydrodynamics simulation. Journal of Sustainable Cement-Based Materials, 2016, 5, 117-134. | 3.1 | 10 |
| 20 | St Venant Torsion and Bending of Prismatic Composite Shafts. Proceedings of the Indian National Science Academy, 2016, . | 1.4 | 0 |
| 21 | A new approach to the design of RC structures based on concrete mix characteristic length. International Journal of Fracture, 2015, 191, 147-165. | 2.2 | 7 |
| 22 | 3D modelling of the flow of self-compacting concrete with or without steel fibres. Part I: slump flow test. Computational Particle Mechanics, 2014, 1, 373-389. | 3.0 | 36 |
| 23 | 3D modelling of the flow of self-compacting concrete with or without steel fibres. Part II: L-box test and the assessment of fibre reorientation during the flow. Computational Particle Mechanics, 2014, 1, 391-408. | 3.0 | 29 |
| 24 | An improved Puckâ€™s failure theory for fibre-reinforced composite laminates including the in situ strength effect. Composites Science and Technology, 2014, 98, 86-92. | 7.8 | 40 |
| 25 | Reorientation of short steel fibres during the flow of self-compacting concrete mix and determination of the fibre orientation factor. Cement and Concrete Research, 2014, 56, 112-120. | 11.0 | 78 |
| 26 | Dynamic strengths and toughness of an ultra high performance fibre reinforced concrete. Engineering Fracture Mechanics, 2013, 110, 477-488. | 4.3 | 83 |
| 27 | Influence of processing defects on the measured properties of Cuâ€“Al2O3 composites: A forensic investigation. Composites Part A: Applied Science and Manufacturing, 2013, 46, 140-146. | 7.6 | 15 |
| 28 | Determination of size-independent specific fracture energy of concrete mixes by the tri-linear model. Cement and Concrete Research, 2013, 49, 82-88. | 11.0 | 56 |
| 29 | Determination of size-independent specific fracture energy of concrete mixes by two methods. Cement and Concrete Research, 2013, 50, 19-25. | 11.0 | 59 |
| 30 | Determination of size-independent specific fracture energy of normal- and high-strength self-compacting concrete from wedge splitting tests. Construction and Building Materials, 2013, 48, 548-553. | 7.2 | 49 |
| 31 | Bilinear tension softening diagrams of concrete mixes corresponding to their size-independent specific fracture energy. Construction and Building Materials, 2013, 47, 1160-1166. | 7.2 | 30 |
| 32 | Honeybee combs: how the circular cells transform into rounded hexagons. Journal of the Royal Society Interface, 2013, 10, 20130299. | 3.4 | 56 |
| 33 | Mix proportioning of self-compacting normal and high-strength concretes. Magazine of Concrete Research, 2013, 65, 546-556. | 2.0 | 32 |
| 34 | Mix proportioning of self-compacting high- and ultra-high-performance concretes with and without steel fibres. Magazine of Concrete Research, 2012, 64, 1089-1100. | 2.0 | 28 |
| 35 | High-rate deformation and fracture of fiber reinforced concrete. Journal of Applied Mechanics and Technical Physics, 2012, 53, 926-933. | 0.5 | 30 |
| 36 | Multi-scale dynamic fracture model for quasi-brittle materials. International Journal of Engineering Science, 2012, 61, 3-9. | 5.0 | 48 |

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| 37 | CARDIFRC â€“ From Concept to Industrial Application. RILEM Bookseries, 2012, , 397-404. | 0.4 | 3 |
| 38 | Influence of micro-structural parameters and thermal cycling on the properties of CARDIFRC. Sadhana - Academy Proceedings in Engineering Sciences, 2012, 37, 125-132. | 1.3 | 1 |
| 39 | Development of self-compacting high and ultra high performance concretes with and without steel fibres. Cement and Concrete Composites, 2012, 34, 185-190. | 10.7 | 89 |
| 40 | Performance of joints in reinforced concrete slabs for two-way spanning action. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2011, 164, 197-209. | 0.8 | 7 |
| 41 | Accurate simulation of mixed-mode cohesive crack propagation in quasi-brittle structures using exact asymptotic fields in XFEM: an overview. Journal of Mechanics of Materials and Structures, 2011, 6, 267-276. | 0.6 | 6 |
| 42 | Modelling the flow of selfâ€compacting concrete. International Journal for Numerical and Analytical Methods in Geomechanics, 2011, 35, 713-723. | 3.3 | 34 |
| 43 | Size-independent fracture energy in plain concrete beams using tri-linear model. Construction and Building Materials, 2011, 25, 3051-3058. | 7.2 | 48 |
| 44 | Pattern transformations in periodic cellular solids under external stimuli. Journal of Applied Physics, 2011, 109, 084907. | 2.5 | 5 |
| 45 | Verification of the applicability of lattice model to concrete fracture by AE study. International Journal of Fracture, 2010, 161, 121-129. | 2.2 | 23 |
| 46 | Fracture process zone size and true fracture energy of concrete using acoustic emission. Construction and Building Materials, 2010, 24, 479-486. | 7.2 | 170 |
| 47 | Asymptotic fields ahead of mixed mode frictional cohesive cracks. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2010, 90, 710-720. | 1.6 | 11 |
| 48 | Behavior of RC Beams Retrofitted with CARDIFRC after Thermal Cycling. Journal of Materials in Civil Engineering, 2010, 22, 21-28. | 2.9 | 8 |
| 49 | Hierarchical, multilayered cell walls reinforced by recycled silk cocoons enhance the structural integrity of honeybee combs. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9502-9506. | 7.1 | 72 |
| 50 | Fatigue life and self-induced volumetric changes of CARDIFRC. Magazine of Concrete Research, 2010, 62, 679-683. | 2.0 | 17 |
| 51 | Mechanical and fracture properties of cement-based bi-materials after thermal cycling. Cement and Concrete Research, 2009, 39, 1087-1094. | 11.0 | 17 |
| 52 | Prediction of the plastic viscosity of self-compacting steel fibre reinforced concrete. Cement and Concrete Research, 2009, 39, 1209-1216. | 11.0 | 72 |
| 53 | Theory of Elasticity at the Nanoscale. Advances in Applied Mechanics, 2009, 42, 1-68. | 2.3 | 222 |
| 54 | Effects of surface and initial stresses on the bending stiffness of trilayer plates and nanofilms. Journal of Mechanics of Materials and Structures, 2009, 4, 589-604. | 0.6 | 46 |

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| 55 | Nano-Cellular Materials with Unusual Mechanical and Physical Properties. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 19-25. | 0.2 | 0 |
| 56 | Elastic Fields in Quantum Dot Structures with Arbitrary Shapes and Interface Effects. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 181-189. | 0.2 | 0 |
| 57 | Thermo-Elastic Size-Dependent Properties of Nano-Composites with Imperfect Interfaces. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 201-209. | 0.2 | 0 |
| 58 | Buckling-driven delamination growth in composite laminates: Guidelines for assessing the threat posed by interlaminar matrix delamination. Composites Part B: Engineering, 2008, 39, 386-395. | 12.0 | 25 |
| 59 | Asymptotic fields at the tip of a cohesive crack. International Journal of Fracture, 2008, 150, 55-74. | 2.2 | 34 |
| 60 | Size-dependent bending of thin metallic films. International Journal of Plasticity, 2008, 24, 991-1007. | 8.8 | 37 |
| 61 | Effective thermal conductivities of heterogeneous media containing multiple imperfectly bonded inclusions. Physical Review B, 2007, 75, . | 3.2 | 90 |
| 62 | Incremental-secant modulus iteration scheme and stress recovery for simulating cracking process in quasi-brittle materials using XFEM. International Journal for Numerical Methods in Engineering, 2007, 69, 2606-2635. | 2.8 | 35 |
| 63 | Implementation of hybrid crack element on a general finite element mesh and in combination with XFEM. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 1864-1873. | 6.6 | 45 |
| 64 | High performance fibre-reinforced cementitious composite (CARDIFRC) â€“ Performance and application to retrofitting. Engineering Fracture Mechanics, 2007, 74, 151-167. | 4.3 | 129 |
| 65 | An overview of a hybrid crack element and determination of its complete displacement field. Engineering Fracture Mechanics, 2007, 74, 1107-1117. | 4.3 | 28 |
| 66 | Thermo-elastic properties of heterogeneous materials with imperfect interfaces: Generalized Levin's formula and Hill's connections. Journal of the Mechanics and Physics of Solids, 2007, 55, 1036-1052. | 4.8 | 94 |
| 67 | Accurate Simulation of Frictionless and Frictional Cohesive Crack Growth in Quasi-Brittle Materials Using XFEM. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2007, , 233-254. | 0.2 | 3 |
| 68 | Accurate Determination of Cohesive Crack Tip Fields Using XFEM and Admissible Stress Recovery. , 2006, , 935-936. | | 0 |
| 69 | Effective conductivities of heterogeneous media containing multiple inclusions with various spatial distributions. Physical Review B, 2006, 73, . | 3.2 | 91 |
| 70 | A scaling law for properties of nano-structured materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 1355-1363. | 2.1 | 124 |
| 71 | Strain distributions in nano-onions with uniform and non-uniform compositions. Nanotechnology, 2006, 17, 3380-3387. | 2.6 | 20 |
| 72 | Asymptotic fields at frictionless and frictional cohesive crack tips in quasibrittle materials. Journal of Mechanics of Materials and Structures, 2006, 1, 881-910. | 0.6 | 33 |

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| 74 | Deterministic size effect in the strength of cracked concrete structures. Cement and Concrete Research, 2006, 36, 171-188. | 11.0 | 54 |
| 75 | Improving the accuracy of XFEM crack tip fields using higher order quadrature and statically admissible stress recovery. International Journal for Numerical Methods in Engineering, 2006, 66, 1378-1410. | 2.8 | 123 |
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| 77 | Conductivities of heterogeneous media with graded anisotropic constituents. Journal of Applied Physics, 2006, 100, 034906. | 2.5 | 14 |
| 78 | CARDIFRCÂ®â€“ Development and mechanical properties. Part I: Development and workability. Magazine of Concrete Research, 2005, 57, 347-352. | 2.0 | 42 |
| 79 | CARDIFRCÂ®â€“ Development and mechanical properties. Part II: Fibre distribution. Magazine of Concrete Research, 2005, 57, 421-432. | 2.0 | 18 |
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| 81 | Size-dependent effective elastic constants of solids containing nano-inhomogeneities with interface stress. Journal of the Mechanics and Physics of Solids, 2005, 53, 1574-1596. | 4.8 | 642 |
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| 84 | Optimum Composite Laminates Least Prone to Delamination under Mechanical and Thermal Loads. , 2005, , 137-170. | | 0 |
| 85 | Eshelby formalism for nano-inhomogeneities. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 3335-3353. | 2.1 | 214 |
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| 87 | Direct determination of SIF and higher order terms of mixed mode cracks by a hybrid crack element. International Journal of Fracture, 2004, 125, 207-225. | 2.2 | 101 |
| 88 | FEM for evaluation of weight functions for SIF, COD and higher-order coefficients with application to a typical wedge splitting specimen. International Journal of Fracture, 2004, 127, 201-237. | 2.2 | 3 |
| 89 | Seismic performance parameters of RC beams retrofitted by CARDIFRCÂ®. Engineering Structures, 2004, 26, 2069-2079. | 5.3 | 9 |
| 90 | Modelling the behaviour of RC beams retrofitted with CARDIFRCÂ®. International Journal for Numerical and Analytical Methods in Geomechanics, 2004, 28, 757-780. | 3.3 | 0 |

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| 91 | XFEM for direct evaluation of mixed mode SIFs in homogeneous and bi-materials. International Journal for Numerical Methods in Engineering, 2004, 59, 1103-1118. | 2.8 | 179 |
| 92 | Discussion on â€œLattice modelling of size effect in concrete strengthâ€•by Ince R, Arslan A, Karihaloo BL [Engineering Fracture Mechanics 2003;70:2307â€“20]. Engineering Fracture Mechanics, 2004, 71, 1629-1630. | 4.3 | 2 |
| 93 | A method for constructing the bilinear tension softening diagram of concrete corresponding to its true fracture energy. Magazine of Concrete Research, 2004, 56, 597-604. | 2.0 | 51 |
| 94 | A method for constructing the bilinear tension softening diagram of concrete corresponding to its true fracture energy. Magazine of Concrete Research, 2004, 56, 597-604. | 2.0 | 6 |
| 95 | Size effect in concrete beams. Engineering Fracture Mechanics, 2003, 70, 979-993. | 4.3 | 102 |
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| 97 | Lattice modelling of size effect in concrete strength. Engineering Fracture Mechanics, 2003, 70, 2307-2320. | 4.3 | 73 |
| 98 | Lattice modelling of the failure of particle composites. Engineering Fracture Mechanics, 2003, 70, 2385-2406. | 4.3 | 99 |
| 99 | Coefficients of the crack tip asymptotic field for wedge splitting specimens. Engineering Fracture Mechanics, 2003, 70, 2407-2420. | 4.3 | 45 |
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| 102 | Fracture Model for Flexural Failure of Beams Retrofitted with CARDIFRC. Journal of Engineering Mechanics - ASCE, 2003, 129, 1028-1038. | 2.9 | 31 |
| 103 | Retrofitting of Reinforced Concrete Beams with CARDIFRC. Journal of Composites for Construction, 2003, 7, 174-186. | 3.2 | 111 |
| 104 | Determination of size-independent specific fracture energy of concrete from three-point bend and wedge splitting tests. Magazine of Concrete Research, 2003, 55, 133-141. | 2.0 | 109 |
| 105 | CARDIFRC: MANUFACTURE AND CONSTITUTIVE BEHAVIOUR. , 2003, , 233-244. | | 6 |
| 106 | A simple method for determining the true specific fracture energy of concrete. Magazine of Concrete Research, 2003, 55, 471-481. | 2.0 | 108 |
| 107 | Determination of size-independent specific fracture energy of concrete from three-point bend and wedge splitting tests. Magazine of Concrete Research, 2003, 55, 133-141. | 2.0 | 3 |
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| 110 | Improved Lattice Model for Concrete Fracture. Journal of Engineering Mechanics - ASCE, 2002, 128, 57-65. | 2.9 | 45 |
| 111 | High-performance fibre-reinforce cementitious composties for retrofitting. International Journal of Materials and Product Technology, 2002, 17, 17. | 0.2 | 13 |
| 112 | Size effect in the strength of concrete structures. Sadhana - Academy Proceedings in Engineering Sciences, 2002, 27, 449-459. | 1.3 | 7 |
| 113 | Approximate Green's functions for singular and higher order terms of an edge crack in a finite plate. Engineering Fracture Mechanics, 2002, 69, 959-981. | 4.3 | 27 |
| 114 | Coefficients of the crack tip asymptotic field for a standard compact tension specimen. International Journal of Fracture, 2002, 118, 1-15. | 2.2 | 22 |
| 115 | Study of rock?mortar interfaces. Part I: surface roughness of rock aggregates and microstructural characteristics of interface. Magazine of Concrete Research, 2002, 54, 449-461. | 2.0 | 1 |
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| 119 | Optimization techniques for the design of high-performance fibre-reinforced concrete. Structural and Multidisciplinary Optimization, 2001, 21, 32-39. | 3.5 | 18 |
| 120 | Homogenization-based multivariable element method for pure torsion of composite shafts. Computers and Structures, 2001, 79, 1645-1660. | 4.4 | 14 |
| 121 | Accurate determination of the coefficients of elastic crack tip asymptotic field by a hybrid crack element with p-adaptivity. Engineering Fracture Mechanics, 2001, 68, 1609-1630. | 4.3 | 136 |
| 122 | Higher order terms of the crack tip asymptotic field for a wedge-splitting specimen. International Journal of Fracture, 2001, 112, 129-137. | 2.2 | 29 |
| 123 | Higher order terms of the crack tip asymptotic field for a notched three-point bend beam. International Journal of Fracture, 2001, 112, 111-128. | 2.2 | 73 |
| 124 | Looking into concrete. Magazine of Concrete Research, 2001, 53, 135-147. | 2.0 | 0 |
| 125 | Effect of aggregate volume fraction on the fracture parameters of concrete: a meso-mechanical approach. Magazine of Concrete Research, 2001, 53, 405-415. | 2.0 | 2 |
| 126 | Micromechanics of Fiber-Reinforced Cementitious Composites. Advanced Engineering Materials, 2000, 2, 726-732. | 3.5 | 16 |

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| 134 | Application of a visco-elastic tension-softening constitutive model to cracked and ageing concrete. Construction and Building Materials, 1999, 13, 15-21. | 7.2 | 13 |
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| 138 | Nonlinear Dynamics and Stability of a Two D.O.F. Elastic/Elasto-Plastic Model System. Meccanica, 1999, 34, 311-336. | 2.0 | 4 |
| 139 | Size effect in shallow and deep notched quasi-brittle structures. International Journal of Fracture, 1999, 95, 379-390. | 2.2 | 103 |
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| 160 | Optimum In Situ Strength Design of Composite Laminates. Part II: Optimum Design. Journal of Composite Materials, 1996, 30, 1338-1358. | 2.4 | 21 |
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| 166 | Minimum cost design of RC frames using the DCOC method Part II: Columns under biaxial bending actions. Structural Optimization, 1995, 10, 33-39. | 0.6 | 8 |
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