# Anthony Duncan Jefferson

List of Publications by Year
in descending order



| 50 | 2,004 | 279487 23 | 253896 43 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 51 | 51 | 51 | 1342 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A Review of Selfâ€Healing Concrete for Damage Management of Structures. Advanced Materials Interfaces, 2018, 5, 1800074. | 1.9 | 412 |
| 2 | Experimental characterization of the self-healing capacity of cement based materials and its effects on the material performance: A state of the art report by COST Action SARCOS WG2. Construction and Building Materials, 2018, 167, 115-142. | 3.2 | 183 |
| 3 | Experimental investigation of adhesive-based self-healing of cementitious materials. Magazine of Concrete Research, 2010, 62, 831-843. | 0.9 | 165 |
| 4 | Evaluation of strains at peak stresses in concrete: A three-phase composite model approach. Cement and Concrete Composites, 1998, 20, 301-318. | 4.6 | 142 |
| 5 | A new system for crack closure of cementitious materials using shrinkable polymers. Cement and Concrete Research, 2010, 40, 795-801. | 4.6 | 76 |
| 6 | Large Scale Application of Self-Healing Concrete: Design, Construction, and Testing. Frontiers in Materials, 0, 5, . | 1.2 | 75 |
| 7 | A survey on problems encountered in current concrete construction and the potential benefits of self-healing cementitious materials. Case Studies in Construction Materials, 2018, 8, 238-247. | 0.8 | 74 |
| 8 | Craftâ€“â€“a plastic-damage-contact model for concrete. I. Model theory and thermodynamic considerations. International Journal of Solids and Structures, 2003, 40, 5973-5999. | 1.3 | 67 |
| 9 | Experimental Investigations into Seismic Failure of High Arch Dams. Journal of Structural Engineering, 2000, 126, 926-935. | 1.7 | 55 |
| 10 | Micromodelling of eccentrically loaded brickwork: Study of masonry wallettes. Engineering Structures, 2010, 32, 1244-1251. | 2.6 | 54 |
| 11 | Simulation of the capillary flow of an autonomic healing agent in discrete cracks in cementitious materials. Cement and Concrete Research, 2014, 58, 35-44. | 4.6 | 51 |
| 12 | Three dimensional finite element simulations of fracture tests using the Craft concrete model. Computers and Concrete, 2004, 1, 261-284. | 0.7 | 43 |
| 13 | A review of vascular networks for self-healing applications. Smart Materials and Structures, 2021, 30, 063001. | 1.8 | 42 |
| 14 | A plastic-damage constitutive model for the finite element analysis of fibre reinforced concrete. Engineering Fracture Mechanics, 2016, 159, 35-62. | 2.0 | 40 |
| 15 | Research Progress on Numerical Models for Selfâ€Healing Cementitious Materials. Advanced Materials Interfaces, 2018, 5, 1701378. | 1.9 | 37 |
| 16 | Investigation of capillary flow in discrete cracks in cementitious materials. Cement and Concrete Research, 2012, 42, 972-981. | 4.6 | 33 |
| 17 | Development of 3D Printed Networks in Self-Healing Concrete. Materials, 2020, 13, 1328. | 1.3 | 32 |
| 18 | A material model for cementitious composite materials with an exterior point Eshelby microcrack initiation criterion. International Journal of Solids and Structures, 2011, 48, 3312-3325. | 1.3 | 30 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Mechanical response of a vascular self-healing cementitious material system under varying loading conditions. Construction and Building Materials, 2020, 254, 119245. | 3.2 | 30 |
| 20 | Micromechanical modelling of self-healing cementitious materials. International Journal of Solids and Structures, 2017, 113-114, 180-191. | 1.3 | 28 |
| 21 | Craftâ€“â€“a plastic-damage-contact model for concrete. II. Model implementation with implicit return-mapping algorithm and consistent tangent matrix. International Journal of Solids and Structures, 2003, 40, 6001-6022. | 1.3 | 27 |
| 22 | Enhanced concrete crack closure with hybrid shape memory polymer tendons. Engineering Structures, 2021, 226, 111330. | 2.6 | 26 |
| 23 | Crack healing of cementitious materials using shrinkable polymer tendons. Structural Concrete, 2013, 14, 138-147. | 1.5 | 25 |
| 24 | Characterisation of a vascular self-healing cementitious material system: Flow and curing properties. Construction and Building Materials, 2020, 245, 118332. | 3.2 | 25 |
| 25 | Constitutive modelling of aggregate interlock in concrete. International Journal for Numerical and Analytical Methods in Geomechanics, 2002, 26, 515-535. | 1.7 | 20 |
| 26 | A coupled thermo-hygro-chemical model for characterising autogenous healing in ordinary cementitious materials. Cement and Concrete Research, 2016, 88, 184-197. | 4.6 | 20 |
| 27 | The simulation of crack opening-closing and aggregate interlock behaviour in finite element concrete models. International Journal for Numerical Methods in Engineering, 2015, 104, 48-78. | 1.5 | 18 |
| 28 | Numerical simulation of the long-term behaviour of a self-healing concrete beam vs standard reinforced concrete. Engineering Structures, 2015, 102, 176-188. | 2.6 | 16 |
| 29 | Development of high shrinkage polyethylene terephthalate (PET) shape memory polymer tendons for concrete crack closure. Smart Materials and Structures, 2017, 26, 045006. | 1.8 | 14 |
| 30 | Plastic-Damage Model for Interfaces in Cementitious Materials. Journal of Engineering Mechanics - ASCE, 1998, 124, 775-782. | 1.6 | 13 |
| 31 | An experimental, numerical and analytical investigation of gas flow characteristics in concrete. Cement and Concrete Research, 2008, 38, 360-367. | 4.6 | 13 |
| 32 | Porosity development in a thermo-hygral finite element model for cementitious materials. Cement and Concrete Research, 2015, 78, 216-233. | 4.6 | 13 |
| 33 | A plastic-damage-contact constitutive model for concrete with smoothed evolution functions. Computers and Structures, 2016, 169, 40-56. | 2.4 | 13 |
| 34 | Capillary Flow Characteristics of an Autogenic and Autonomic Healing Agent for Self-Healing Concrete. Journal of Materials in Civil Engineering, 2017, 29, . | 1.3 | 13 |
| 35 | Shrinkage behavior of poly(ethylene terephthalate) for a new cementitiousâ€“shrinkable polymer material system. Journal of Applied Polymer Science, 2011, 120, 2516-2526. | 1.3 | 10 |
| 36 | Finite element crack width computations with a thermo-hygro-mechanical-hydration model for concrete structures. European Journal of Environmental and Civil Engineering, 2014, 18, 793-813. | 1.0 | 10 |

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|---|---|---|---|
| 37 | Tripartite Cohesive Crack Model. Journal of Engineering Mechanics - ASCE, 2002, 128, 644-653. | 1.6 | 9 |
| 38 | A model for cementitious composite materials based on micro-mechanical solutions and damage-contact theory. Computers and Structures, 2010, 88, 1361-1366. | 2.4 | 9 |
| 39 | A smooth unloadingâ€“reloading approach for the nonlinear finite element analysis of quasi-brittle materials. Engineering Fracture Mechanics, 2016, 152, 105-125. | 2.0 | 8 |
| 40 | Stepped softening functions for concrete fracture in finite element analysis. Computers and Structures, 1991, 41, 331-344. | 2.4 | 5 |
| 41 | Progressive instability in circular masonry columns. Engineering Structures, 2018, 157, 96-104. | 2.6 | 5 |
| 42 | A crack-opening-dependent numerical model for self-healing cementitious materials. International Journal of Solids and Structures, 2022, 244-245, 111601. | 1.3 | 5 |
| 43 | Experimental Tests and Numerical Modelling of Hexagonal Concrete Specimens. Materials and Structures/Materiaux Et Constructions, 2007, 40, 491-505. | 1.3 | 3 |
| 44 | Smoothed contact in a micromechanical model for cement bound materials. Computers and Structures, 2013, 118, 115-125. | 2.4 | 3 |
| 45 | An indicatorâ€based problem reduction scheme for coupled reactive transport models. International Journal for Numerical Methods in Engineering, 2019, 120, 1428-1455. | 1.5 | 3 |
| 46 | An experimental and numerical study on vascular self-healing cementitious materials. MATEC Web of Conferences, 2019, 289, 01004. | 0.1 | 3 |
| 47 | A reformulated hardening soil model. Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics, 2020, 173, 11-29. | 0.4 | 3 |
| 48 | The simulation of inelastic matrix strains in cementitious materials using micromechanical solutions. Engineering Fracture Mechanics, 2015, 133, 191-210. | 2.0 | 2 |
| 49 | MODELLING SOIL-FIBRE COMPOSITE BEHAVIOUR USING A MICROMECHANICAL APPROACH. , 2016, , . | | 0 |
| 50 | A coupled chemo-mechanical damage-healing model for cementitious materials. , 2018, , 285-288. | | 0 |