# David Ryckelynck

List of Publications by Year
in descending order

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|---|---|---|---|
| 41<br>papers | 336<br>citations | 1039406<br>9<br>h-index | 940134<br>16<br>g-index |
| 43<br>all docs | 43<br>docs citations | 43<br>times ranked | 231<br>citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Crystal plasticity modeling of the cyclic behavior of polycrystalline aggregates under non-symmetric uniaxial loading: Global and local analyses. International Journal of Plasticity, 2020, 126, 102619. | 4.1 | 44 |
| 2 | Model order reduction assisted by deep neural networks (ROM-net). Advanced Modeling and Simulation in Engineering Sciences, 2020, 7, . | 0.7 | 42 |
| 3 | Multidimensional a priori hyper-reduction of mechanical models involving internal variables. Computer Methods in Applied Mechanics and Engineering, 2012, 225-228, 28-43. | 3.4 | 32 |
| 4 | A nonintrusive distributed reduced-order modeling framework for nonlinear structural mechanics—Application to elastoviscoplastic computations. International Journal for Numerical Methods in Engineering, 2020, 121, 32-53. | 1.5 | 22 |
| 5 | Hyper-reduced predictions for lifetime assessment of elasto-plastic structures. Meccanica, 2016, 51, 309-317. | 1.2 | 19 |
| 6 | A robust adaptive model reduction method for damage simulations. Computational Materials Science, 2011, 50, 1597-1605. | 1.4 | 16 |
| 7 | Estimation of the validity domain of hyper-reduction approximations in generalized standard elastoviscoplasticity. Advanced Modeling and Simulation in Engineering Sciences, 2015, 2, . | 0.7 | 16 |
| 8 | Réduction a priori de modèles thermomécaniques. Comptes Rendus - Mecanique, 2002, 330, 499-505. | 2.1 | 15 |
| 9 | Interpolation naturelle sur les domaines non convexes par l'utilisation du diagramme de Voronoï contraint. Revue Europeenne Des Elements, 2003, 12, 487-509. | 0.1 | 10 |
| 10 | Physics-informed cluster analysis and a priori efficiency criterion for the construction of local reduced-order bases. Journal of Computational Physics, 2022, 458, 111120. | 1.9 | 9 |
| 11 | Numerical simulation of the cooling-down of high-zirconia fused-cast refractories. Journal of the European Ceramic Society, 2012, 32, 3941-3947. | 2.8 | 8 |
| 12 | Hyper-reduced direct numerical simulation of voids in welded joints via image-based modeling. International Journal for Numerical Methods in Engineering, 2020, 121, 2581-2599. | 1.5 | 7 |
| 13 | Deep learning model to assist multiphysics conjugate problems. Physics of Fluids, 2022, 34, . | 1.6 | 7 |
| 14 | Toward "green" mechanical simulations in materials science. European Journal of Computational Mechanics, 2010, 19, 365-388. | 0.6 | 6 |
| 15 | Hyper-reduction of generalized continua. Computational Mechanics, 2017, 59, 753-778. | 2.2 | 6 |
| 16 | Computer Vision with Error Estimation for Reduced Order Modeling of Macroscopic Mechanical Tests. Complexity, 2018, 2018, 1-10. | 0.9 | 6 |
| 17 | An Algorithmic Comparison of the Hyper-Reduction and the Discrete Empirical Interpolation Method for a Nonlinear Thermal Problem. Mathematical and Computational Applications, 2018, 23, 8. | 0.7 | 6 |
| 18 | Data Augmentation and Feature Selection for Automatic Model Recommendation in Computational Physics. Mathematical and Computational Applications, 2021, 26, 17. | 0.7 | 6 |

| # | ARTICLE | IF | CITATIONS |
|---|---------|-----|-----------|
| 19 | An adaptive ROM approach for solving transfer equations. European Journal of Computational Mechanics, 2006, 15, 589-605. | 0.6 | 5 |
| 20 | Hyper-reduction framework for model calibration in plasticity-induced fatigue. Advanced Modeling and Simulation in Engineering Sciences, 2016, 3, . | 0.7 | 5 |
| 21 | Data Pruning of Tomographic Data for the Calibration of Strain Localization Models. Mathematical and Computational Applications, 2019, 24, 18. | 0.7 | 5 |
| 22 | Data-Targeted Prior Distribution for Variational AutoEncoder. Fluids, 2021, 6, 343. | 0.8 | 5 |
| 23 | Real-Time Data Assimilation in Welding Operations Using Thermal Imaging and Accelerated High-Fidelity Digital Twinning. Mathematics, 2021, 9, 2263. | 1.1 | 5 |
| 24 | Uncertainty quantification for industrial numerical simulation using dictionaries of reduced order models. Mechanics and Industry, 2022, 23, 3. | 0.5 | 5 |
| 25 | Deep multimodal autoencoder for crack criticality assessment. International Journal for Numerical Methods in Engineering, 2022, 123, 1456-1480. | 1.5 | 5 |
| 26 | Multiple Tensor Train Approximation of Parametric Constitutive Equations in Elasto-Viscoplasticity. Mathematical and Computational Applications, 2019, 24, 17. | 0.7 | 4 |
| 27 | Mechanical dissimilarity of defects in welded joints via Grassmann manifold and machine learning. Comptes Rendus - Mecanique, 2020, 348, 911-935. | 0.3 | 4 |
| 28 | Architectured Materials to Improve the Reliability of Power Electronics Modules: Substrate and Lead-Free Solder. Journal of Electronic Materials, 2014, 43, 648-657. | 1.0 | 3 |
| 29 | Mechanical assessment of defects in welded joints: morphological classification and data augmentation. Journal of Mathematics in Industry, 2021, 11, . | 0.7 | 3 |
| 30 | Condition Number and Clustering-Based Efficiency Improvement of Reduced-Order Solvers for Contact Problems Using Lagrange Multipliers. Mathematics, 2022, 10, 1495. | 1.1 | 3 |
| 31 | Deterministic particle approach of Multi Bead-Spring polymer models. European Journal of Computational Mechanics, 2006, 15, 481-494. | 0.6 | 2 |
| 32 | Deep Convolutional Generative Adversarial Networks Applied to 2D Incompressible and Unsteady Fluid Flows. Advances in Intelligent Systems and Computing, 2020, , 264-276. | 0.5 | 2 |
| 33 | α-NEM and model reduction. Revue Europeenne Des Elements, 2005, 14, 903-923. | 0.1 | 1 |
| 34 | Anticipation of gears distortions caused by heat treatments. AIP Conference Proceedings, 2007, , . | 0.3 | 1 |
| 35 | A pruning algorithm preserving modeling capabilities for polycrystalline data. Computational Mechanics, 2021, 68, 1407-1419. | 2.2 | 1 |
| 36 | Treating Moving Interfaces in Thermal Models with the C-NEM. , 2005, , 255-269. | | 0 |

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|---|---------|----|-----------|
| 37 | Detection of deviations origins in a heat treatment process using Proper Orthogonal Decomposition (POD) basis. International Journal of Material Forming, 2008, 1, 1055-1058. | 0.9 | 0 |
| 38 | Multidimensional Hyper-Reduction of Large Mechanical Models Involving Internal Variables. , 2012, , . | | 0 |
| 39 | Micro-mechanical characterization of lead-free solder joints in power electronics. , 2014, , . | | 0 |
| 40 | Fragmentation modeling of a resin bonded sand. EPJ Web of Conferences, 2017, 140, 11004. | 0.1 | 0 |
| 41 | Reduced Order Modeling Assisted by Convolutional Neural Network for Thermal Problems with Nonparametrized Geometrical Variability. Advances in Intelligent Systems and Computing, 2020, , 245-263. | 0.5 | 0 |