Nam T Dinh

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7602438/publications.pdf

Version: 2024-02-01

90	3,079	172207	168136
papers	citations	29	53
		h-index	g-index

95	95	95	1729
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Digital-twin-based improvements to diagnosis, prognosis, strategy assessment, and discrepancy checking in a nearly autonomous management and control system. Annals of Nuclear Energy, 2022, 166, 108715.	0.9	16
2	An adaptive knowledge-based data-driven approach for turbulence modeling using ensemble learning technique under complex flow configuration: 3D PWR sub-channel with DNS data. Nuclear Engineering and Design, 2022, 393, 111814.	0.8	2
3	Development and assessment of a nearly autonomous management and control system for advanced reactors. Annals of Nuclear Energy, 2021, 150, 107861.	0.9	24
4	Deep learning interfacial momentum closures in coarse-mesh CFD two-phase flow simulation using validation data. International Journal of Multiphase Flow, 2021, 135, 103489.	1.6	14
5	Assessment of the Predictive Capability of VERAâ€"CS for CASL Challenge Problems. Journal of Verification, Validation and Uncertainty Quantification, 2021, 6, .	0.3	3
6	AI-Guided Reasoning-Based Operator Support System for the Nuclear Power Plant Management. Annals of Nuclear Energy, 2021, 154, 108079.	0.9	11
7	Integration of neural networks with numerical solution of PDEs for closure models development. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 406, 127456.	0.9	6
8	Uncertainty quantification for Multiphase-CFD simulations of bubbly flows: a machine learning-based Bayesian approach supported by high-resolution experiments. Reliability Engineering and System Safety, 2021, 212, 107636.	5.1	30
9	Uncertainty quantification and software risk analysis for digital twins in the nearly autonomous management and control systems: A review. Annals of Nuclear Energy, 2021, 160, 108362.	0.9	35
10	Development of the Machine Learning-based Safety Significant Factor Inference Model for Diagnosis in Autonomous Control System. Annals of Nuclear Energy, 2021, 162, 108443.	0.9	14
11	Enhancing the Operational Resilience of Advanced Reactors with Digital Twins by Recurrent Neural Networks. , 2021, , .		1
12	Machine-learning based error prediction approach for coarse-grid Computational Fluid Dynamics (CG-CFD). Progress in Nuclear Energy, 2020, 118, 103140.	1.3	56
13	Risk informed validation framework for external flooding scenario. Nuclear Engineering and Design, 2020, 356, 110377.	0.8	13
14	An Application of ASP in Nuclear Engineering: Explaining the Three Mile Island Nuclear Accident Scenario. Theory and Practice of Logic Programming, 2020, 20, 926-941.	1.1	2
15	Enhancement of risk informed validation framework for external hazard scenario. Reliability Engineering and System Safety, 2020, 204, 107140.	5.1	9
16	Using deep learning to explore local physical similarity for global-scale bridging in thermal-hydraulic simulation. Annals of Nuclear Energy, 2020, 147, 107684.	0.9	21
17	Adequacy evaluation of smoothed particle hydrodynamics methods for simulating the external-flooding scenario. Nuclear Engineering and Design, 2020, 365, 110720.	0.8	8
18	Computationally efficient CFD prediction of bubbly flow using physics-guided deep learning. International Journal of Multiphase Flow, 2020, 131, 103378.	1.6	30

#	ARTICLE	IF	CITATIONS
19	Reynolds-Averaged Turbulence Modeling Using Deep Learning with Local Flow Features: An Empirical Approach. Nuclear Science and Engineering, 2020, 194, 650-664.	0.5	4
20	Predictive Capability Maturity Quantification Using Bayesian Network. Journal of Verification, Validation and Uncertainty Quantification, 2020, 5, .	0.3	3
21	Benchmarking an AI-Guided Reasoning-Based Operator Support System on the Three Mile Island Accident Scenario. , 2020, , .		2
22	Development and Assessment of a Nearly Autonomous Management and Control System During a Single Loss of Flow Accident. , 2020, , .		1
23	A framework for assessment of predictive capability maturity and its application in nuclear thermal hydraulics. Nuclear Engineering and Design, 2019, 354, 110201.	0.8	11
24	A data-driven framework for error estimation and mesh-model optimization in system-level thermal-hydraulic simulation. Nuclear Engineering and Design, 2019, 349, 27-45.	0.8	33
25	Validation and uncertainty quantification of multiphase-CFD solvers: A data-driven Bayesian framework supported by high-resolution experiments. Nuclear Engineering and Design, 2019, 354, 110200.	0.8	20
26	Uncertainty quantification of two-phase flow and boiling heat transfer simulations through a data-driven modular Bayesian approach. International Journal of Heat and Mass Transfer, 2019, 138, 1096-1116.	2.5	29
27	Classification of machine learning frameworks for data-driven thermal fluid models. International Journal of Thermal Sciences, 2019, 135, 559-579.	2.6	62
28	Validation and Uncertainty Quantification for Wall Boiling Closure Relations in Multiphase-CFD Solver. Nuclear Science and Engineering, 2019, 193, 81-99.	0.5	17
29	Safe reactor depressurization windows for BWR Mark I Station Blackout accident management strategy. Annals of Nuclear Energy, 2018, 114, 518-529.	0.9	10
30	Probabilistic risk assessment based model validation method using Bayesian network. Reliability Engineering and System Safety, 2018, 169, 380-393.	5.1	56
31	Flow Boiling in Tubes. , 2018, , 1907-1949.		0
32	Experimental investigations on the boiling heat transfer of horizontal flow in the near-critical region. International Journal of Heat and Mass Transfer, 2018, 125, 618-628.	2.5	12
33	Data-driven modeling for boiling heat transfer: Using deep neural networks and high-fidelity simulation results. Applied Thermal Engineering, 2018, 144, 305-320.	3.0	79
34	A study of heat transfer scaling of supercritical pressure water in horizontal tubes. International Journal of Heat and Mass Transfer, 2017, 114, 923-933.	2.5	34
35	Experimental study on the difference of heat transfer characteristics between vertical and horizontal flows of supercritical pressure water. Applied Thermal Engineering, 2017, 113, 609-620.	3.0	57
36	Sensitivity Analysis of Interfacial Momentum Closure Terms in Two Phase Flow and Boiling Simulations Using MCFD Solver. , 2017, , .		1

#	Article	IF	Citations
37	A Computational Study of Thin Film Dynamics on Micro-Structured Surfaces. , 2016, , .		1
38	Analysis of heat transfer under high heat flux nucleate boiling conditions. Kerntechnik, 2016, 81, 308-314.	0.2	3
39	A study of the effect of binary oxide materials in a single droplet vapor explosion. Nuclear Engineering and Design, 2013, 264, 168-175.	0.8	23
40	Simulation and validation of the dynamics of liquid films evaporating on horizontal heater surfaces. Applied Thermal Engineering, 2012, 48, 486-494.	3.0	7
41	An experimental study of rupture dynamics of evaporating liquid films on different heater surfaces. International Journal of Heat and Mass Transfer, 2011, 54, 1538-1547.	2.5	18
42	The DEFOR-S Experimental Study of Debris Formation with Corium Simulant Materials. Nuclear Technology, 2010, 170, 219-230.	0.7	43
43	Diagnostic techniques for the dynamics of a thin liquid film under forced flow and evaporating conditions. Microfluidics and Nanofluidics, 2010, 9, 1077-1089.	1.0	18
44	A reconstructed discontinuous Galerkin method for the compressible Navierâ€“Stokes equations on arbitrary grids. Journal of Computational Physics, 2010, 229, 6961-6978.	1.9	154
45	The effects of debris bed's prototypical characteristics on corium coolability in a LWR severe accident. Nuclear Engineering and Design, 2010, 240, 598-608.	0.8	47
46	An approach to numerical simulation and analysis of molten corium coolability in a boiling water reactor lower head. Nuclear Engineering and Design, 2010, 240, 2148-2159.	0.8	33
47	Risk-Informed Safety Margin Characterization. , 2009, , .		5
48	Simultaneous high speed digital cinematographic and X-ray radiographic imaging of a intense multi-fluid interaction with rapid phase changes. Experimental Thermal and Fluid Science, 2009, 33, 754-763.	1.5	18
49	A scoping study of debris bed formation in the DEFOR test facility. Nuclear Engineering and Design, 2009, 239, 1653-1659.	0.8	78
50	Thermal-hydraulic performance of heavy liquid metal in straight-tube and U-tube heat exchangers. Nuclear Engineering and Design, 2009, 239, 1323-1330.	0.8	29
51	The effective convectivity model for simulation of melt pool heat transfer in a light water reactor pressure vessel lower head. Part I: Physical processes, modeling and model implementation. Progress in Nuclear Energy, 2009, 51, 849-859.	1.3	30
52	Dynamics and Preconditioning in a Single-Droplet Vapor Explosion. Nuclear Technology, 2009, 167, 223-234.	0.7	15
53	SIMULATION OF CORE MELT POOL FORMATION IN A REACTOR PRESSURE VESSEL LOWER HEAD USING AN EFFECTIVE CONVECTIVITY MODEL. Nuclear Engineering and Technology, 2009, 41, 929-944.	1.1	16
54	The effect of thermal radiation on the solidification dynamics of metal oxide melt droplets. Nuclear Engineering and Design, 2008, 238, 1421-1429.	0.8	39

#	ARTICLE	IF	CITATIONS
55	Aerobreakup in disturbed subsonic and supersonic flow fields. Journal of Fluid Mechanics, 2007, 593, 131-170.	1.4	42
56	Adaptive characteristics-based matching for compressible multifluid dynamics. Journal of Computational Physics, 2006, 213, 500-529.	1.9	148
57	Treatment of Particle Collisions in Direct Numerical Simulations of High Speed Compressible Flows. , 2006, , 247-259.		5
58	Compressible Multi-Hydrodynamics (CMH): Breakup, Mixing, and Dispersal of Liquids/Solids in High Speed Flows. , 2006, , 353-369.		11
59	Adaptive Characteristics-Based Matching (aCBM): A Method for Interfacial Dynamics in Compressible Multiphase Flows. , 2006, , 341-352.		0
60	On improving mass conservation of level set by reducing spatial discretization errors. International Journal of Multiphase Flow, 2005, 31, 1329-1336.	1.6	40
61	Shock wave refraction patterns at interfaces. International Journal of Multiphase Flow, 2005, 31, 969-995.	1.6	28
62	Investigation of Breakup of Isolated and Multiple Drops in Subsonic Flow. , 2005, , .		1
63	Adaptive Strategies for Mass Conservation in Level Set Treatment. , 2005, , .		5
64	Sharp Treatment of Surface Tension and Viscous Stresses in Multifluid Dynamics. , 2005, , .		8
65	A pseudocompressibility method for the numerical simulation of incompressible multifluid flows. International Journal of Multiphase Flow, 2004, 30, 901-937.	1.6	48
66	A Numerical Study of the Shape Effect on Drag in Supersonic Low Reynolds Number (Rarefied) Flows. , 2004, , .		1
67	Particle-to-Particle Long Range Interaction and Drag in Supersonic Flows. , 2004, , .		4
68	An Experimental Study of Droplet Breakup in Supersonic Flow: The Effect of Long-range Interactions. , 2004, , .		8
69	Assessment of reactor vessel integrity (ARVI). Nuclear Engineering and Design, 2003, 221, 23-53.	0.8	46
70	The multiphase Eulerian-Lagrangian transport (MELT-3D) approach for modeling of multiphase mixing in fragmentation processes. Progress in Nuclear Energy, 2003, 42, 123-157.	1.3	7
71	The lattice Boltzmann equation method: theoretical interpretation, numerics and implications. International Journal of Multiphase Flow, 2003, 29, 117-169.	1.6	342
72	The Characteristics-Based Matching Method for Compressible Flow in Complex Geometries. , 2003, , .		7

#	Article	IF	Citations
73	An Investigation of Droplet Breakup in a High Mach, Low Weber Number Regime. , 2003, , .		5
74	The â€˜Characteristics-Based Matchingâ€™ (CBM) Method for Compressible Flow With Moving Boundaries and Interfaces. , 2003, , 1705.		1
75	A Characteristics-Based Approach to the Numerical Solution of the Two-Fluid Model. , 2003, , 1729.		4
76	The boiling crisis phenomenon. Experimental Thermal and Fluid Science, 2002, 26, 775-792.	1.5	247
77	The boiling crisis phenomenon. Experimental Thermal and Fluid Science, 2002, 26, 793-810.	1.5	270
78	Characterization of heat transfer processes in a melt pool convection and vessel-creep experiment. Nuclear Engineering and Design, 2002, 211, 173-187.	0.8	15
79	On lattice Boltzmann modeling of phase transition in an isothermal non-ideal fluid. Nuclear Engineering and Design, 2002, 211, 153-171.	0.8	34
80	Numerical investigation of boiling regime transition mechanism by a Latticeâ€“Boltzmann model. Nuclear Engineering and Design, 2001, 204, 143-153.	0.8	12
81	Numerical investigation of bubble growth and detachment by the lattice-Boltzmann method. International Journal of Heat and Mass Transfer, 2001, 44, 195-206.	2.5	83
82	Core melt spreading on a reactor containment floor. Progress in Nuclear Energy, 2000, 36, 405-468.	1.3	48
83	Experimental and analytical studies of melt jet-coolant interactions: a synthesis. Nuclear Engineering and Design, 1999, 189, 299-327.	0.8	80
84	Investigation of film boiling thermal hydraulics under FCI conditions: results of analyses and a numerical study. Nuclear Engineering and Design, 1999, 189, 251-272.	0.8	21
85	Numerical simulation of droplet deformation and break-up by Lattice-Boltzmann method. Progress in Nuclear Energy, 1999, 34, 471-488.	1.3	41
86	Turbulence modelling for large volumetrically heated liquid pools. Nuclear Engineering and Design, 1997, 169, 131-150.	0.8	53
87	Effect of fluid Prandtl number on heat transfer characteristics in internally heated liquid pools with Rayleigh numbers up to 1012. Nuclear Engineering and Design, 1997, 169, 165-184.	0.8	53
88	On heat transfer characteristics of real and simulant melt pool experiments. Nuclear Engineering and Design, 1997, 169, 151-164.	0.8	27
89	Simulation and analysis of transient cooldown natural convection experiments. Nuclear Engineering and Design, 1997, 178, 13-27.	0.8	8
90	The investigation of turbulence characteristics in an internally-heated unstably-stratified fluid layer. Nuclear Engineering and Design, 1997, 178, 235-258.	0.8	17