

# Dieter Krause

## List of Publications by Year in descending order

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107  
papers

1,078  
citations

567144

15  
h-index

552653

26  
g-index

114  
all docs

114  
docs citations

114  
times ranked

754  
citing authors

#	ARTICLE	IF	CITATIONS
1	Global Views on Modular Design Research: Linking Alternative Methods to Support Modular Product Family Concept Development. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2016, 138, .	1.7	94
2	Numerical modelling of Nomex honeycomb sandwich cores at meso-scale level. <i>Composite Structures</i> , 2017, 159, 702-718.	3.1	83
3	Methodische Entwicklung modularer Produktfamilien. , 2018, , .		60
4	3D Printing of Intracranial Aneurysms Using Fused Deposition Modeling Offers Highly Accurate Replications. <i>American Journal of Neuroradiology</i> , 2016, 37, 120-124.	1.2	53
5	Magnetic Particle Imaging for High Temporal Resolution Assessment of Aneurysm Hemodynamics. <i>PLoS ONE</i> , 2016, 11, e0160097.	1.1	51
6	Experimental and numerical study on the influence of imperfections on the buckling load of unstiffened CFRP shells. <i>Composite Structures</i> , 2015, 131, 128-138.	3.1	43
7	Cost Effects of Modular Product Family Structures: Methods and Quantification of Impacts to Support Decision Making. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2017, 139, .	1.7	42
8	Integrated Development of Modular Product Families: A Methods Toolkit. , 2014, , 245-269.		42
9	Oil Droplet Size Distributions in Deep-Sea Blowouts: Influence of Pressure and Dissolved Gases. <i>Environmental Science &amp; Technology</i> , 2018, 52, 6326-6333.	4.6	37
10	Process Types of Customisation and Personalisation in Design for Additive Manufacturing Applied to Vascular Models. <i>Procedia CIRP</i> , 2016, 50, 281-286.	1.0	26
11	Rise Velocity of Live-Oil Droplets in Deep-Sea Oil Spills. <i>Environmental Engineering Science</i> , 2018, 35, 289-299.	0.8	23
12	An Example of Visually Supported Design of Modular Product Families. <i>Procedia CIRP</i> , 2014, 21, 75-80.	1.0	22
13	Evaluation of a modular in vitro neurovascular procedure simulation for intracranial aneurysm embolization. <i>Journal of NeuroInterventional Surgery</i> , 2020, 12, 214-219.	2.0	20
14	Numerical modelling of partially potted inserts in honeycomb sandwich panels under pull-out loading. <i>Composite Structures</i> , 2018, 203, 101-109.	3.1	19
15	Impact of Modularity Decisions on a Firm's Economic Objectives. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2020, 142, .	1.7	19
16	Reliability based calibration of safety factors for unstiffened cylindrical composite shells. <i>Composite Structures</i> , 2017, 168, 798-812.	3.1	18
17	Determination of the multiaxial failure criteria for alumina ceramics under tension-torsion test. <i>Journal of the European Ceramic Society</i> , 2010, 30, 3339-3349.	2.8	17
18	Methodical Approach for Consideration of Ramp-up Risks in the Product Development of Complex Products. <i>Procedia CIRP</i> , 2014, 20, 20-25.	1.0	17

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19	Design for Mass Adaptation of the Neurointerventional Training Model HANNES with Patient-Specific Aneurysm Models. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 897-906.	0.6	15
20	Development of a Design Education Platform for an Interdisciplinary Teaching Concept. Procedia CIRP, 2020, 91, 553-558.	1.0	15
21	Methane bubble rise velocities under deep-sea conditionsâ€™Influence of initial shape deformation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 505, 106-117.	2.3	14
22	Strategies for Customer Satisfaction and Customer Requirement Fulfillment within the Trend of Individualization. Procedia CIRP, 2019, 84, 130-135.	1.0	14
23	AN ASSESSMENT OF METHODS TO SUPPORT THE DESIGN OF FUTURE ROBUST MODULAR PRODUCT ARCHITECTURES. , 0, , .		14
24	Gleichteile-, Modul- und Plattformstrategie. , 2016, , 111-149.		12
25	Prototyping and testing of composite riser joints for deepwater application. Journal of Reinforced Plastics and Composites, 2016, 35, 95-110.	1.6	11
26	The Impact of Modular Product Architectures in PSS Design: A systematic Literature Review. Procedia CIRP, 2019, 84, 290-295.	1.0	11
27	Design method validation â€™ an investigation of the current practice in design research. Journal of Engineering Design, 2021, 32, 621-645.	1.1	11
28	Methodical Support for the Development of Modular Product Families. , 2011, , 35-45.		11
29	Harmonizing cross-departmental Perspectives on Modular Product Families. Procedia CIRP, 2020, 91, 452-457.	1.0	10
30	TOWARDS A FRAMEWORK FOR THE DESIGN OF VARIETY-ORIENTED PRODUCT-SERVICE SYSTEMS. Proceedings of the Design Society DESIGN Conference, 2020, 1, 1345-1354.	0.8	10
31	Reviewing the intellectual structure of product modularization: Toward a common view and future research agenda. Journal of Product Innovation Management, 2023, 40, 86-119.	5.2	9
32	Continuing Education and Personalization of Design Methods to Improve their Acceptance in Practice â€™ An Explorative Study. Procedia CIRP, 2017, 60, 524-529.	1.0	8
33	Towards a Decision-Making Framework for Multi-Criteria Product Modularization in Cooperative Environments. Procedia CIRP, 2018, 70, 380-385.	1.0	8
34	Produktarchitektur. , 2021, , 335-393.		7
35	Design of Personalized Devicesâ€™The Tradeoff between Individual Value and Personalization Workload. Applied Sciences (Switzerland), 2021, 11, 241.	1.3	7
36	Overcoming fuzzy design practice: revealing potentials of user-centered design research and methodological concepts related to user involvement. , 2019, , .		6

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37	Long-term effects of modular product architectures: An empirical follow-up study. Procedia CIRP, 2019, 84, 731-736.	1.0	6
38	VALIDATION CONCEPT FOR THE INVESTIGATION OF EFFECTS OF MODULAR PRODUCT FAMILIES. Proceedings of the Design Society DESIGN Conference, 2020, 1, 2395-2404.	0.8	6
39	INCONSISTENCY MANAGEMENT FOR PRODUCT FAMILIES WITH MANY VARIANTS THROUGH A MODEL-BASED APPROACH IN MODULAR LIGHTWEIGHT DESIGN. Proceedings of the Design Society DESIGN Conference, 2020, 1, 917-926.	0.8	6
40	INVESTIGATION ON METHODS AND CHARACTERISTICS IN MEDICAL DEVICE DEVELOPMENT. Proceedings of the Design Society DESIGN Conference, 2020, 1, 1969-1978.	0.8	6
41	Model-based application of the methodical process for modular lightweight design of aircraft cabins. Procedia CIRP, 2021, 100, 637-642.	1.0	6
42	Behavior of Rising Droplets and Bubbles: Impact on the Physics of Deep-Sea Blowouts and Oil Fate. , 2020, , 65-82.		6
43	Consistent Modelling of the Impact Model of Modular Product Structures with Linking Boundary Conditions in SysML. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 3601-3610.	0.6	5
44	Development of a Configure-to-Order-Based Process for the Implementation of Modular Product Architectures: A Case Study. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 2971-2980.	0.6	5
45	CURRENT CHALLENGES AND SOLUTION APPROACHES IN EMPIRICAL ENGINEERING DESIGN RESEARCH " A WORKSHOP FOR EMPIRICAL RESEARCH. Proceedings of the Design Society DESIGN Conference, 2020, 1, 61-70.	0.8	5
46	A MULTI-DIMENSIONAL CONFIGURATION ALGORITHM FOR MODULAR PRODUCT ARCHITECTURES. Proceedings of the Design Society DESIGN Conference, 2020, 1, 2405-2414.	0.8	5
47	Optimization of load introduction points in sandwich structures with additively manufactured cores. Design Science, 2020, 6, .	1.1	5
48	Using MBSE for the Enhancement of Consistency and Continuity in Modular Product-Service-System Architectures. Systems, 2021, 9, 63.	1.2	5
49	Developing Modular Product Families with Perspectives for the Product Program. Lecture Notes in Production Engineering, 2013, , 543-552.	0.3	5
50	A Simulation-Based Decision Support Method For Modular Product Architecture Alternatives. , 0, , .		5
51	Knowledge-Based Decision Support for Concept Evaluation Using the Extended Impact Model of Modular Product Families. Applied Sciences (Switzerland), 2022, 12, 547.	1.3	5
52	Design for Supply Chain Requirements: An Approach to Detect the Capabilities to Postpone. , 2011, , .		4
53	Adapted Design for Variety: Consideration of the Software-Domain. , 2019, , .		4
54	Optimizing lightweight structures with particle damping using frequency based substructuring. Design Science, 2020, 6, .	1.1	4

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55	Challenges in early phase of product family development processes. Procedia CIRP, 2021, 100, 840-845.	1.0	4
56	LIFE PHASES MODULARISATION OF PRODUCT-SERVICE SYSTEMS. Proceedings of the Design Society, 2021, 1, 1967-1976.	0.5	4
57	Assembly Concepts for Aircraft Cabin Installation. , 2010, , .		4
58	Lebensphasenübergreifende Nutzung Digitaler Zwillinge. ZWF Zeitschrift fuer Wirtschaftlichen Fabrikbetrieb, 2020, 115, 101-104.	0.2	4
59	MBSE als Datenbasis zur Unterstützung von Konfiguratoren und Digitalen Zwillingen modularer Produktfamilien. , 0, , .		4
60	Transferability of Boundary Conditions in Testing and Validation of Lightweight Structures. , 2019, , .		4
61	Influence of friction bearings on the frequency response of a variable stiffness mechanism. Mechanism and Machine Theory, 2022, 168, 104588.	2.7	4
62	How to Use the Levers of Modularity Properly – Linking Modularization to Economic Targets. Journal of Mechanical Design, Transactions of the ASME, 2022, 144, .	1.7	4
63	Business Models and Product-Service System Design - Introducing the Business Model Graph. , 2021, , .		4
64	DESIGN FOR FUTURE VARIETY TO ENABLE LONG-TERM BENEFITS OF MODULAR PRODUCT FAMILIES. Proceedings of the Design Society, 2021, 1, 993-1002.	0.5	3
65	MBSE zur Unterstützung der Produktentwicklung von modularen Produktarchitekturen. Produktentwicklung Und Konstruktionstechnik, 2020, , 111-134.	0.2	3
66	Investigating the Effects of Modular Product Structures to Support Design Decisions in Modularization Projects. , 2020, , .		3
67	Approach for Calibrated Measurement of the Frequency Response for Characterization of Compliant Interface Elements on Vibration Test Benches. Applied Sciences (Switzerland), 2021, 11, 9604.	1.3	3
68	Planning & Tracking the Changes - Matrix Mapping of Modular Product Family Generations. , 2020, , .		3
69	Coping Asynchronous Modular Product Design by Modelling a Systems-in-System. Proceedings of the Design Society, 2022, 2, 2553-2562.	0.5	3
70	Definition and Evaluation of Modular Product Structures in the Context of Design for Assembly. , 2011, , .		2
71	System analysis and synthesis for the dimensioning of variant lightweight cabin interior. , 2013, , .		2
72	Decisive economies and opportunity cost of modular product structure alternatives: An empirical case study. , 2017, , .		2

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73	Validation of the Design for Mass Adaptation Method " A Case for Higher Medical Treatment Quality. Proceedings of the International Symposium of Human Factors and Ergonomics in Healthcare, 2020, 9, 88-100.	0.2	2
74	Cross-departmental and cross-disciplinary product development " An industry survey on the necessity and future development of cross-departmental and cross-disciplinary perspectives. Procedia CIRP, 2021, 100, 625-630.	1.0	2
75	Variety-driven design to reduce complexity costs of a tire curing press family. Procedia CIRP, 2021, 100, 696-701.	1.0	2
76	INTERDISCIPLINARY SYSTEM ARCHITECTURES IN AGILE MODULAR DEVELOPMENT IN THE PRODUCT GENERATION DEVELOPMENT MODEL USING THE EXAMPLE OF A MACHINE TOOL MANUFACTURER. Proceedings of the Design Society, 2021, 1, 1897-1906.	0.5	2
77	SIMULATION-BASED PERFORMANCE ANALYSIS FOR FUTURE ROBUST MODULAR PRODUCT ARCHITECTURES. Proceedings of the Design Society, 2021, 1, 2671-2680.	0.5	2
78	Grundlagen technischer Systeme und des methodischen Vorgehens. , 2018, , 372-411.		2
79	Darstellung des Zusammenhangs von Produktarchitektur- und Produktionssystemgestaltung in SysML. , 0, , .		2
80	Development of synthetic thrombus models to simulate stroke treatment in a physical neurointerventional training model. International Journal of Transgender Health, 2022, 15, 283-301.	1.1	2
81	Methodical Support for the New Development of Cyber-Physical Product Families. Proceedings of the Design Society, 2022, 2, 495-504.	0.5	2
82	Product Life-Oriented Development of Component Commonality and Variety. , 2013, , .		1
83	CURRENT TRENDS AND DEVELOPMENTS OF PRODUCT MODULARISATION " A BIBLIOMETRIC ANALYSIS. Proceedings of the Design Society, 2021, 1, 801-810.	0.5	1
84	STUDENT PARTICIPANTS IN EMPIRICAL STUDIES IN ENGINEERING DESIGN - A COLLECTION OF REFLECTIONS TO IMPROVE YOUR STUDY QUALITY. Proceedings of the Design Society, 2021, 1, 2741-2750.	0.5	1
85	Towards Complexity Cost Management within Approaches for Developing Modular Product Families. , 2014, , .		1
86	Early Phase Estimation of Variety Induced Complexity Cost Effects: A Study on Industrial Cases in Germany. , 2017, , 271-303.		1
87	Methoden zur Entwicklung modularer Produktfamilien. , 2018, , 157-242.		1
88	Zusammenhänge und Auswirkungen der Vielfalt. , 2018, , 19-65.		1
89	Modulare Produktstrukturierung. , 2018, , 717-741.		1
90	Anknüpfung von Modularisierungsmethoden an ein Wirkmodell modularer Produktstrukturen. , 2019, , .		1

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91	Characteristic-Oriented Complexity Cost Analysis for Evaluating Individual Product Attributes. Lecture Notes in Mechanical Engineering, 2022, , 686-693.	0.3	1
92	Tools for the Variety-Oriented Product-Service System Design. Lecture Notes in Mechanical Engineering, 2022, , 798-806.	0.3	1
93	PKT – Kontinuierliche Weiterentwicklung in Forschung und Lehre. Produktentwicklung Und Konstruktionstechnik, 2020, , 1-30.	0.2	1
94	Aortic Model in a Neurointerventional Training Model – Modular Design and Additive Manufacturing. , 2021, , 437-454.		1
95	Challenges of Modular Product Families and Product Personalization - An Interview Study. , 2021, , .		1
96	Methodical Approach for the Model-Based Development of Aircraft Cabin Product Families Under Consideration of Lightweight and Cost-Based Design. Proceedings of the Design Society, 2022, 2, 435-444.	0.5	1
97	New Trends in Aviation and Medical Technology Enabled by Additive Manufacturing. , 0, 2, .		1
98	New Stirling Motor Design With Efficiency by Using Ceramic Components. , 2010, , .		0
99	Platform of Design Method for Developing Mobility-preserving Products. Procedia CIRP, 2014, 21, 409-414.	1.0	0
100	PhD Research Learning in Product Architecture Design. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 549-558.	0.6	0
101	Methodische Entwicklung eines Modulbaukastens für kundenindividuelle Aufzüge. ZWF Zeitschrift Für Wirtschaftlichen Fabrikbetrieb, 2015, 110, 32-35.	0.2	0
102	Decision-Making in Additive Manufacturing – Survey on AM Experience and Expertise of Designers. , 2018, , 347-360.		0
103	Potenziale modularer Produktfamilien. , 2018, , 89-125.		0
104	Grundlagen technischer Systeme und des methodischen Vorgehens. , 2020, , 3-63.		0
105	Comparing Friction of Additively Manufactured Materials with Animal Blood Vessels. Annals of 3D Printed Medicine, 2022, , 100061.	1.6	0
106	Modeling of an Interface Between System Models and FEM Models for the Support of Model-Based Development in Modular Lightweight Design for Aircraft Cabins. Proceedings of the Design Society, 2022, 2, 1965-1974.	0.5	0
107	Designing PSS Fleets – Consideration of the Product Architecture. Proceedings of the Design Society, 2022, 2, 1109-1118.	0.5	0