Jochen Kuhn

List of Publications by Year
in descending order

124
papers

2,480
citations

159585
30
h-index

233421
45
g-index

161
all docs

161
docs citations

161
times ranked

758
citing authors

#	Article	IF	Citations
1	The Sound of a Laser Blaster: Acoustic Dispersion in Metal Springs Analyzed with Mobile Devices and Open-Source PC Audio Software. Physics Teacher, 2022, 60, 28-33.	0.3	1
2	Motivational outcomes of the science outreach lab S'Cool <scp>LAB</scp> at <scp>CERN</scp>: A multilevel analysis. Journal of Research in Science Teaching, 2022, 59, 930-968.	3.3	5
3	Experiments with mobile devices â€" A retrospective on 10 years of iPhysicsLabs. Physics Teacher, 2022, 60, 88-89.	0.3	4
4	Augmented Reality for Presenting Real-Time Data During Studentsâ€™ Laboratory Work: Comparing a Head-Mounted Display With a Separate Display. Frontiers in Psychology, 2022, 13, 804742.	2.1	8
5	Comparison of Written and Spoken Instruction to Foster Coordination between Diagram and Equation in Undergraduate Physics Education. Human Behavior and Emerging Technologies, 2022, 2022, 1-13.	4.4	2
6	Smart Sensors for Augmented Electrical Experiments. Sensors, 2022, 22, 256.	3.8	6
7	Quantifying Gaze-Based Strategic Patterns in Physics Vector Field Divergence. Lecture Notes in Computer Science, 2021, , 465-481.	1.3	0
8	The flashing light bulb: A quantitative introduction to the theory of alternating current. Physics Teacher, 2021, 59, 138-139.	0.3	1
9	Hands-on Experiment for Modeling the Baumgartner Jump Using Free-Fall Kinematics with Drag. Physics Teacher, 2021, 59, 111-113.	0.3	0
10	Test of understanding graphs in kinematics: Item objectives confirmed by clustering eye movement transitions. Physical Review Physics Education Research, 2021, 17, .	2.9	12
11	ARETT: Augmented Reality Eye Tracking Toolkit for Head Mounted Displays. Sensors, 2021, 21, 2234.	3.8	44
12	Shepard scale produced and analyzed with mobile devices. Physics Teacher, 2021, 59, 378-379.	0.3	0
13	Different approaches to helping students develop conceptual understanding in university physics. Journal of Physics: Conference Series, 2021, 1929, 012001.	0.4	0
14	Comparing Two Subjective Rating Scales Assessing Cognitive Load During Technology-Enhanced STEM Laboratory Courses. Frontiers in Education, 2021, 6, .	2.1	9
15	Einfluss visueller Hilfen und rÃumlicher FÃhigkeiten auf die graphische Interpretation von Vektorfeldern: Eine Eye-Tracking-Untersuchung. Zeitschrift FÃ¼r Didaktik Der Naturwissenschaften, 2021, 27, 181-201.	0.6	5
16	Side window buffeting: a smartphone investigation on a car trip. European Journal of Physics, 2021, 42, 065803.	0.6	0
17	Validation of Cognitive Load During Inquiry-Based Learning With Multimedia Scaffolds Using Subjective Measurement and Eye Movements. Frontiers in Psychology, 2021, 12, 703857.	2.1	6
18	Inventory for the assessment of representational competence of vector fields. Physical Review Physics Education Research, 2021, 17, .	2.9	9

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19	Using Augmented Reality in an Inquiry-Based Physics Laboratory Course. Communications in Computer and Information Science, 2021, , 177-198.	0.5	1
20	Gaze-Based Prediction of Studentsâ€™ Understanding of Physics Line-Graphs: An Eye-Tracking-Data Based Machine-Learning Approach. Communications in Computer and Information Science, 2021, , 450-467.	0.5	1
21	Video analysis to examine Keplerâ€™s laws of planetary motion. Physics Teacher, 2021, 59, 660-661.	0.3	2
22	Mobile Eye-Tracking Data Analysis Using Object Detection via YOLO v4. Sensors, 2021, 21, 7668.	3.8	11
23	Visual attention while solving the test of understanding graphs in kinematics: an eye-tracking analysis. European Journal of Physics, 2020, 41, 025701.	0.6	25
24	Making the invisible visible: Visualization of the connection between magnetic field, electric current, and Lorentz force with the help of augmented reality. Physics Teacher, 2020, 58, 438-439.	0.3	8
25	Changes in Studentsâ€™ Understanding of and Visual Attention on Digitally Represented Graphs Across Two Domains in Higher Education: A Postreplication Study. Frontiers in Psychology, 2020, 11, 2090.	2.1	16
26	Investigating Dynamic Visualizations of Multiple Representations Using Mobile Video Analysis in Physics Lessons. Zeitschrift FÃ¼r Didaktik Der Naturwissenschaften, 2020, 26, 123-142.	0.6	20
27	Using mobile devices to enhance inquiry-based learning processes. Learning and Instruction, 2020, 69, 101350.	3.2	64
28	Effects of augmented reality on learning and cognitive load in university physics laboratory courses. Computers in Human Behavior, 2020, 108, 106316.	8.5	153
29	Using Smartphones as Experimental Toolsâ€”a Follow-up: Cognitive Effects by Video Analysis and Reduction of Cognitive Load by Multiple Representations. Journal of Science Education and Technology, 2020, 29, 303-317.	3.9	46
30	The use of augmented reality to foster conceptual knowledge acquisition in STEM laboratory coursesâ€”Theoretical background and empirical results. British Journal of Educational Technology, 2020, 51, 611-628.	6.3	89
31	Acoustic tube models of the human vocal tract for the university classroom. European Journal of Physics, 2020, 41, 065804.	0.6	4
32	Studentsâ€™ understanding of non-inertial frames of reference. Physical Review Physics Education Research, 2020, 16, .	2.9	19
33	The Effects of Augmented Reality: A Comparative Study in an Undergraduate Physics Laboratory Course. , 2020, , .		8
34	FÃ¶rderung von KonzeptverstÃ¤ndnis und ReprÃ¤sentationskompetenz durch Tablet-PC-gestÃ¼tzte Videoanalyse. Zeitschrift FÃ¼r Didaktik Der Naturwissenschaften, 2019, 25, 1-24.	0.6	9
35	Augmenting Kirchhoffâ€™s laws: Using augmented reality and smartglasses to enhance conceptual electrical experiments for high school students. Physics Teacher, 2019, 57, 52-53.	0.3	37
36	Visual cues improve studentsâ€™ understanding of divergence and curl: Evidence from eye movements during reading and problem solving. Physical Review Physics Education Research, 2019, 15, .	2.9	23

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37	Student understanding of graph slope and area under a curve: A replication study comparing first-year physics and economics students. Physical Review Physics Education Research, 2019, 15, .	2.9	35
38	Picture Bias in Upper-division Physics Education. , 2019, , 135-142.		2
39	Akustik. , 2019, , 103-164.		0
40	Smartglasses as Assistive Tools for Undergraduate and Introductory STEM Laboratory Courses. , 2019, , 35-58.		0
41	Kinematik und Dynamik. , 2019, , 9-61.		0
42	Smartphone und Tablet-PC als mobiles Mini-Labor. , 2019, , 1-7.		0
43	Mechanische Schwingungen und Wellen. , 2019, , 83-102.		0
44	Physics holo.lab learning experience: using smartglasses for augmented reality labwork to foster the concepts of heat conduction. European Journal of Physics, 2018, 39, 035703.	0.6	65
45	Using Smartphones as Experimental Toolsâ€"Effects on Interest, Curiosity, and Learning in Physics Education. Journal of Science Education and Technology, 2018, 27, 385-403.	3.9	113
46	Augmented Learning on Anticipating Textbooks with Eye Tracking. , 2018, , 387-398.		8
47	FÃ¶rderung von ReprÃ¤sentationskompetenz und Experimentbezug in den vorlesungsbegleitenden Ãœbungen zur Experimentalphysik. Zeitschrift FÃ¼r Didaktik Der Naturwissenschaften, 2018, 24, 17-34.	0.6	19
48	HyperMind Builder. , 2018, , .		3
49	Evaluating similarity measures for gaze patterns in the context of representational competence in physics education. , 2018, , .		2
50	The dynamics of the magnetic linear accelerator examined by video motion analysis. Physics Teacher, 2018, 56, 484-485.	0.3	6
51	Coupled pendulums on a clothesline. Physics Teacher, 2018, 56, 404-405.	0.3	9
52	Lernen im Kontext. , 2018, , 193-207.		10
53	Instruction-based clinical eye-tracking study on the visual interpretation of divergence: How do students look at vector field plots?. Physical Review Physics Education Research, 2018, 14, .	2.9	41
54	Studentsâ€™ Visual Attention While Solving Multiple Representation Problems in Upper-Division Physics. , 2018, , 67-87.		0

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55	Rotational and frictional dynamics of the slamming of a door. American Journal of Physics, 2017, 85, 30-37.	0.7	13
56	Augmenting the thermal flux experiment: A mixed reality approach with the HoloLens. Physics Teacher, 2017, 55, 376-377.	0.3	52
57	Adaptation of acoustic model experiments of STM via smartphones and tablets. Physics Teacher, 2017, 55, 436-437.	0.3	3
58	Noise Immission Analyzer - Eine App misst den Schalldruckpegel. Physik in Unserer Zeit, 2017, 48, 45-46.	0.0	1
59	Erhebung von reprÃsentationaler KohÃrenzfÃhigkeit von SchÃ¼lerinnen und SchÃ¼lern im Themenbereich Strahlenoptik. Zeitschrift FÃ¼r Didaktik Der Naturwissenschaften, 2017, 23, 181-203.	0.6	7
60	Cognitive State Measurement on Learning Materials by Utilizing Eye Tracker and Thermal Camera. , 2017, , .		12
61	Smarte Aufgaben zur Mechanik und WÃrme. , 2017, , .		1
62	Assessment of representational competence in kinematics. Physical Review Physics Education Research, 2017, 13, .	2.9	47
63	Tunnel pressure waves â€“ A smartphone inquiry on rail travel. Physics Teacher, 2016, 54, 118-119.	0.3	13
64	Harmonic Resonances in Metal Rods â€“ Easy Experimentation with a Smartphone and Tablet PC. Physics Teacher, 2016, 54, 163-167.	0.3	9
65	Die smarte Lupe. Physik in Unserer Zeit, 2016, 47, 307-308.	0.0	1
66	A study on representational competence in physics using mobile eye tracking systems. , 2016, , .		11
67	Going nuts: Measuring free-fall acceleration by analyzing the sound of falling metal pieces. Physics Teacher, 2016, 54, 182-183.	0.3	7
68	Video analysis on tablet computers to investigate effects of air resistance. Physics Teacher, 2016, 54, 440-441.	0.3	40
69	Any problems? a wearable sensor-based platform for representational learning-analytics.. , 2016, , .		6
70	Entropy based transition analysis of eye movement on physics representational competence. , 2016, , .		16
71	Ein Blick auf die Herzfrequenz mit Cardiio. Physik in Unserer Zeit, 2016, 47, 201-202.	0.0	0
72	LÃngen- und HÃ¶henmessungen per App. Physik in Unserer Zeit, 2016, 47, 150-151.	0.0	0

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73	Towards an intelligent textbook. , 2016, , .		13
74	Exzellenzstrategie und Hochschuldidaktik - (neue) Chancen und Herausforderungen fÃ¼r Fachdidaktik?. Chemkon - Chemie Konkret, Forum Fuer Unterricht Und Didaktik, 2016, 23, 161-162.	0.4	0
75	Apps, die beim LÃ¼ften helfen. Physik in Unserer Zeit, 2016, 47, 98-99.	0.0	0
76	gPhysicsâ€"Using Smart Glasses for Head-Centered, Context-Aware Learning in Physics Experiments. IEEE Transactions on Learning Technologies, 2016, 9, 304-317.	3.2	53
77	Science education with handheld devices: A comparison of Nintendo WiiMote and iPod touch for kinematics learning. Perspectives in Science, 2016, 10, 13-18.	0.6	6
78	Magnetfelder messen mit Teslameter 11th. Physik in Unserer Zeit, 2016, 47, 45-46.	0.0	2
79	iMobilePhysics: Seamless Learning durch Experimente mit Smartphones & Tablets in Physik. Zeitschrift FÃ¼r Hochschulentwicklung, 2016, 11, .	0.1	5
80	Glass-physics. , 2015, , .		22
81	Die App Physics Toolbox Light Sensor. Physik in Unserer Zeit, 2015, 46, 201-203.	0.0	0
82	Resonanzen mit <i>Spectrum View Plus</i> messen. Physik in Unserer Zeit, 2015, 46, 252-253.	0.0	0
83	HÃ¶henmessungen Ã¼ber Luftdruckmessungen. Physik in Unserer Zeit, 2015, 46, 307-308.	0.0	0
84	Measurement of sound velocity made easy using harmonic resonant frequencies with everyday mobile technology. Physics Teacher, 2015, 53, 120-121.	0.3	62
85	Bewegungen mit der App Video Analysis analysieren. Physik in Unserer Zeit, 2015, 46, 98-99.	0.0	1
86	Cracking knuckles â€" A smartphone inquiry on bioacoustics. Physics Teacher, 2015, 53, 307-308.	0.3	11
87	The right frame of reference makes it simple: an example of introductory mechanics supported by video analysis of motion. European Journal of Physics, 2015, 36, 015004.	0.6	8
88	Smartphones & Co. in Physics Education: Effects of Learning with New Media Experimental Tools in Acoustics. , 2015, , 253-269.		12
89	Determining ball velocities with smartphones. Physics Teacher, 2014, 52, 376-377.	0.3	13
90	Analyzing the acoustic beat with mobile devices. Physics Teacher, 2014, 52, 248-249.	0.3	40

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91	Physics education with Google Glass gPhysics experiment app. , 2014, , .		11
92	Video-based problems in introductory mechanics physics courses. European Journal of Physics, 2014, 35, 055019.	0.6	22
93	Die App Oszilloskop analysiert Schall oder elektrische Signale. Physik in Unserer Zeit, 2014, 45, 150-151.	0.0	3
94	â€œParticlesâ€•simuliert ein ideales Gas. Physik in Unserer Zeit, 2014, 45, 46-47.	0.0	0
95	Empfangssignale untersuchen mit Network Signal Info. Physik in Unserer Zeit, 2014, 45, 99-100.	0.0	0
96	Analyzing collision processes with the smartphone acceleration sensor. Physics Teacher, 2014, 52, 118-119.	0.3	33
97	Analyzing elevator oscillation with the smartphone acceleration sensors. Physics Teacher, 2014, 52, 55-56.	0.3	28
98	Angular velocity and centripetal acceleration relationship. Physics Teacher, 2014, 52, 312-313.	0.3	65
99	Video analysis of projectile motion using tablet computers as experimental tools. Physics Education, 2014, 49, 37-40.	0.5	39
100	Using smartphones and tablet PCs for <i>Î²</i> ^{â^’} -spectroscopy in an educational experimental setup. European Journal of Physics, 2014, 35, 065001.	0.6	10
101	iRadioactivity â€” Possibilities and Limitations for Using Smartphones and Tablet PCs as Radioactive Counters. Physics Teacher, 2014, 52, 351-356.	0.3	35
102	The spinning disc: studying radial acceleration and its damping process with smartphone acceleration sensors. Physics Education, 2014, 49, 137-140.	0.5	40
103	RELEVANT INFORMATION ABOUT USING A MOBILE PHONE ACCELERATION SENSOR IN PHYSICS EXPERIMENTS. American Journal of Physics, 2014, 82, 94-94.	0.7	30
104	Classical experiments revisited: smartphones and tablet PCs as experimental tools in acoustics and optics. Physics Education, 2014, 49, 412-418.	0.5	65
105	Context-based science education by newspaper story problems: A study on motivation and learning effects. Perspectives in Science, 2014, 2, 5-21.	0.6	35
106	Analyzing radial acceleration with a smartphone acceleration sensor. Physics Teacher, 2013, 51, 182-183.	0.3	53
107	Analyzing acoustic phenomena with a smartphone microphone. Physics Teacher, 2013, 51, 118-119.	0.3	69
108	Physik mit Smartphones und Tabletâ€PCs. Physik in Unserer Zeit, 2013, 44, 44-45.	0.0	6

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109	Beschleunigungen messen mit SPARKvue. Physik in Unserer Zeit, 2013, 44, 97-98.	0.0	1
110	Acoustic measurements of bouncing balls and the determination of gravitational acceleration. Physics Teacher, 2013, 51, 312-313.	0.3	31
111	Beschleunigungspfeile mit AccelVisu. Physik in Unserer Zeit, 2013, 44, 306-308.	0.0	1
112	Ton und Klang mit Audio Kit. Physik in Unserer Zeit, 2013, 44, 151-152.	0.0	3
113	Smartphone als GeigerzÃhler. Physik in Unserer Zeit, 2013, 44, 253-255.	0.0	2
114	Diffraction experiments with infrared remote controls. Physics Teacher, 2012, 50, 118-119.	0.3	28
115	Determining the speed of sound with stereo headphones. Physics Teacher, 2012, 50, 308-309.	0.3	7
116	Analyzing simple pendulum phenomena with a smartphone acceleration sensor. Physics Teacher, 2012, 50, 439-440.	0.3	90
117	Analyzing spring pendulum phenomena with a smart-phone acceleration sensor. Physics Teacher, 2012, 50, 504-505.	0.3	81
118	Analyzing free fall with a smartphone acceleration sensor. Physics Teacher, 2012, 50, 182-183.	0.3	121
119	Founder family influence and foreign exchange risk management. International Journal of Managerial Finance, 2011, 7, 38-67.	1.1	14
120	Experiments Using Cell Phones in Physics Classroom Education: The Computer-Aided <i>g</i> Determination. Physics Teacher, 2011, 49, 383-384.	0.3	44
121	Integrated foreign exchange risk management: The role of import in medium-sized manufacturing firms. Journal of Multinational Financial Management, 2010, 20, 235-250.	2.3	16
122	Authentische Aufgaben im theoretischen Rahmen von Instruktions- und Lehr-Lern-Forschung. , 2010, , .		23
123	Analyzing student understanding of vector field plots with respect to divergence. , 0, , .		1
124	Visual understanding of divergence and curl: Visual cues promote better learning. , 0, , .		1