Chandralekha Singh

List of Publications by Year
in descending order

227 papers	6,057 citations	66343 42 h-index	106344 65 g-index
230 all docs	230 docs citations	230 times ranked	1876 citing authors

#	Article	IF	Citations
1	Modeling the Interactions between Polymers and Clay Surfaces through Self-Consistent Field Theory. Macromolecules, 1998, 31, 8370-8381.	4.8	329
2	Theoretical Phase Diagrams of Polymer/Clay Composites:Â The Role of Grafted Organic Modifiers. Macromolecules, 2000, 33, 1089-1099.	4.8	187
3	Modeling the Phase Behavior of Polymer/Clay Nanocomposites. Accounts of Chemical Research, 1999, 32, 651-657.	15.6	170
4	Student understanding of quantum mechanics. American Journal of Physics, 2001, 69, 885-895.	0.7	160
5	Forming Patterned Films with Tethered Diblock Copolymers. Macromolecules, 1996, 29, 6338-6348.	4.8	123
6	Female students with Aâ€™s have similar physics self-efficacy as male students with Câ€™s in introductory courses: A cause for alarm?. Physical Review Physics Education Research, 2018, 14, .	2.9	105
7	Multiple-choice test of energy and momentum concepts. American Journal of Physics, 2003, 71, 607-617.	0.7	103
8	Improving studentsâ€™ understanding of quantum mechanics. Physics Today, 2006, 59, 43-49.	0.3	101
9	Review of student difficulties in upper-level quantum mechanics. Physical Review Physics Education Research, 2015, 11, .	1.7	96
10	Interactive learning tutorials on quantum mechanics. American Journal of Physics, 2008, 76, 400-405.	0.7	94
11	When physical intuition fails. American Journal of Physics, 2002, 70, 1103-1109.	0.7	93
12	Self-Assembly of Tethered Diblocks in Selective Solvents. Macromolecules, 1996, 29, 8254-8259.	4.8	90
13	Surveying studentsâ€™ understanding of quantum mechanics in one spatial dimension. American Journal of Physics, 2012, 80, 252-259.	0.7	87
14	Phase Behavior of Semiflexible Diblock Copolymers. Macromolecules, 1994, 27, 2974-2986.	4.8	73
15	Improving studentsâ€™ understanding of quantum measurement. I. Investigation of difficulties. Physical Review Physics Education Research, 2012, 8, .	1.7	72
16	Changing Social Contexts to Foster Equity in College Science Courses: An Ecological-Belonging Intervention. Psychological Science, 2020, 31, 1059-1070.	3.3	70
17	Student understanding of rotational and rolling motion concepts. Physical Review Physics Education Research, 2005, 1, .	1.7	68
18	Framework for understanding the patterns of student difficulties in quantum mechanics. Physical Review Physics Education Research, 2015, 11, .	1.7	68

#	Article	IF	Citations
19	Assessing student expertise in introductory physics with isomorphic problems. II. Effect of some potential factors on problem solving and transfer. Physical Review Physics Education Research, 2008, 4, .	1.7	65
20	Improving studentsâ€™ understanding of quantum mechanics via the Sternâ€“Gerlach experiment. American Journal of Physics, 2011, 79, 499-507.	0.7	64
21	Attraction between Surfaces in a Polymer Melt Containing Telechelic Chains:Â Guidelines for Controlling the Surface Separation in Intercalated Polymerâ^'Clay Composites. Langmuir, 1999, 15, 3935-3943.	3.5	63
22	Student understanding of symmetry and Gaussâ€™s law of electricity. American Journal of Physics, 2006, 74, 923-936.	0.7	60
23	Categorization of quantum mechanics problems by professors and students. European Journal of Physics, 2010, 31, 57-68.	0.6	60
24	Gendered patterns in the construction of physics identity from motivational factors. Physical Review Physics Education Research, 2019, 15, .	2.9	60
25	Improving student understanding of addition of angular momentum in quantum mechanics. Physical Review Physics Education Research, 2013, 9, .	1.7	59
26	A longitudinal analysis of studentsâ€™ motivational characteristics in introductory physics courses: Gender differences. Canadian Journal of Physics, 2018, 96, 391-405.	1.1	59
27	Effect of polymer architecture on the miscibility of polymer/clay mixtures. Polymer International, 2000, 49, 469-471.	3.1	57
28	Damage caused by womenâ€™s lower self-efficacy on physics learning. Physical Review Physics Education Research, 2020, 16, .	2.9	57
29	Microscopic Solubility-Parameter Theory of Polymer Blends: General Predictions. Macromolecules, 1995, 28, 2063-2080.	4.8	55
30	Why female science, technology, engineering, and mathematics majors do not identify with physics: They do not think others see them that way. Physical Review Physics Education Research, 2019, 15, .	2.9	55
31	Modeling the Interactions between Polymer-Coated Surfaces. Journal of Physical Chemistry B, 1997, 101, 10614-10624.	2.6	53
32	Improving studentsâ€™ understanding of quantum measurement. II. Development of research-based learning tools. Physical Review Physics Education Research, 2012, 8, .	1.7	53
33	Helping students learn effective problem solving strategies by reflecting with peers. American Journal of Physics, 2010, 78, 748-754.	0.7	51
34	Impact of peer interaction on conceptual test performance. American Journal of Physics, 2005, 73, 446-451.	0.7	49
35	Hermione and the Secretary: how gendered task division in introductory physics labs can disrupt equitable learning. European Journal of Physics, 2020, 41, 035702.	0.6	48
36	Interactive tutorial to improve student understanding of single photon experiments involving a Machâ€“Zehnder interferometer. European Journal of Physics, 2016, 37, 024001.	0.6	46

#	Article	IF	Citations
37	Assessing student expertise in introductory physics with isomorphic problems. I. Performance on nonintuitive problem pair from introductory physics. Physical Review Physics Education Research, 2008, 4, .	1.7	45
38	Assessing expertise in introductory physics using categorization task. Physical Review Physics Education Research, 2011, 7, .	1.7	44
39	Do evidence-based active-engagement courses reduce the gender gap in introductory physics?. European Journal of Physics, 2018, 39, 025701.	0.6	44
40	Correlation effects and entropyâ€driven phase separation in athermal polymer blends. Journal of Chemical Physics, 1995, 103, 5814-5832.	3.0	43
41	Interactions between Polymer-Coated Surfaces in Poor Solvents. 1. Surfaces Grafted with A and B Homopolymers. Macromolecules, 1996, 29, 7559-7570.	4.8	43
42	Using isomorphic problems to learn introductory physics. Physical Review Physics Education Research, 2011, 7, .	1.7	43
43	Student Difficulties with Quantum Mechanics Formalism. AIP Conference Proceedings, 2007, , .	0.4	41
44	Categorization of problems to assess and improve proficiency as teachers and learners. American Journal of Physics, 2009, 77, 73-80.	0.7	39
45	Effect of scaffolding on helping introductory physics students solve quantitative problems involving strong alternative conceptions. Physical Review Physics Education Research, 2015, 11, .	1.7	39
46	Surveying graduate studentsâ€™ attitudes and approaches to problem solving. Physical Review Physics Education Research, 2010, 6, .	1.7	37
47	Improving performance in quantum mechanics with explicit incentives to correct mistakes. Physical Review Physics Education Research, 2016, 12, .	2.9	37
48	Transfer of Learning in Quantum Mechanics. AIP Conference Proceedings, 2005, , .	0.4	34
49	Exploring one aspect of pedagogical content knowledge of teaching assistants using the test of understanding graphs in kinematics. Physical Review Physics Education Research, 2013, 9, .	1.7	34
50	Investigating and improving student understanding of quantum mechanics in the context of single photon interference. Physical Review Physics Education Research, 2017, 13, .	2.9	34
51	Behavior of tethered polyelectrolytes in poor solvents. Journal of Chemical Physics, 1998, 108, 1175-1183.	3.0	33
52	What do students do when asked to diagnose their mistakes? Does it help them? II. A more typical quiz context. Physical Review Physics Education Research, 2012, 8, .	1.7	33
53	Using an isomorphic problem pair to learn introductory physics: Transferring from a two-step problem to a three-step problem. Physical Review Physics Education Research, 2013, 9, .	1.7	33
54	Using categorization of problems as an instructional tool to help introductory students learn physics. Physics Education, 2016, 51, 025009.	0.5	33

#	Article	IF	Citations
55	Underrepresented minority students receive lower grades and have higher rates of attrition across STEM disciplines: A sign of inequity?. International Journal of Science Education, 2021, 43, 1054-1089.	1.9	33
56	Effect of gender, self-efficacy, and interest on perception of the learning environment and outcomes in calculus-based introductory physics courses. Physical Review Physics Education Research, 2021, 17, .	2.9	33
57	Quantum interactive learning tutorial on the double-slit experiment to improve student understanding of quantum mechanics. Physical Review Physics Education Research, 2017, 13, .	2.9	33
58	Assessing and improving student understanding of quantum mechanics. AIP Conference Proceedings, 2006, , .	0.4	32
59	Cognitive Issues in Learning Advanced Physics: An Example from Quantum Mechanics. AIP Conference Proceedings, 2009, , .	0.4	32
60	Developing and validating a conceptual survey to assess introductory physics studentsâ€™ understanding of magnetism. European Journal of Physics, 2017, 38, 025702.	0.6	31
61	Case study evaluating Just-In-Time Teaching and Peer Instruction using clickers in a quantum mechanics course. Physical Review Physics Education Research, 2016, 12, .	2.9	31
62	Athermal stiffness blends: A comparison of Monte Carlo simulations and integral equation theory. Journal of Chemical Physics, 1995, 103, 9460-9474.	3.0	30
63	Helping Students Learn Quantum Mechanics for Quantum Computing. AIP Conference Proceedings, 2007, , .	0.4	30
64	Challenges in designing appropriate scaffolding to improve studentsâ€™ representational consistency: The case of a Gaussâ€™s law problem. Physical Review Physics Education Research, 2017, 13, .	2.9	30
65	Is agreeing with a gender stereotype correlated with the performance of female students in introductory physics?. Physical Review Physics Education Research, 2018, 14, .	2.9	30
66	What do students do when asked to diagnose their mistakes? Does it help them? I. An atypical quiz context. Physical Review Physics Education Research, 2012, 8, .	1.7	29
67	Investigating and improving student understanding of the probability distributions for measuring physical observables in quantum mechanics. European Journal of Physics, 2017, 38, 025705.	0.6	29
68	Fluctuation phenomena in structurally symmetric polymer blends. Journal of Chemical Physics, 1995, 102, 2187-2208.	3.0	28
69	Compression of two polymerâ€coated surfaces in poor solvents. Journal of Chemical Physics, 1996, 105, 706-713.	3.0	28
70	How diverse are physics instructorsâ€™ attitudes and approaches to teaching undergraduate level quantum mechanics?. European Journal of Physics, 2017, 38, 035703.	0.6	28
71	Impact of Guided Reflection with Peers on the Development of Effective Problem Solving Strategies and Physics Learning. Physics Teacher, 2016, 54, 295-299.	0.3	27
72	Investigating and improving student understanding of the expectation values of observables in quantum mechanics. European Journal of Physics, 2017, 38, 045701.	0.6	27

#	Article	IF	Citations
73	Coupled Enthalpic-Packing Effects on the Miscibility of Conformationally Asymmetric Polymer Blends. Macromolecules, 1997, 30, 1490-1508.	4.8	26
74	Surveying college introductory physics studentsâ€™ attitudes and approaches to problem solving. European Journal of Physics, 2016, 37, 055704.	0.6	26
75	A â€œJumping Micelleâ€•Phase Transition. Macromolecules, 1996, 29, 7637-7640.	4.8	25
76	Why Are There So Few Women in Physics? Reflections on the Experiences of Two Women. Physics Teacher, 2020, 58, 297-300.	0.3	25
77	Teaching assistantsâ€™ performance at identifying common introductory student difficulties in mechanics revealed by the Force Concept Inventory. Physical Review Physics Education Research, 2016, 12, .	2.9	25
78	FCI normalized gain, scientific reasoning ability, thinking in physics, and gender effects. , 2012, , .		23
79	Validation and administration of a conceptual survey on the formalism and postulates of quantum mechanics. Physical Review Physics Education Research, 2019, 15, .	2.9	23
80	Interactions between Polymer-Coated Surfaces in Poor Solvents. 2. Surfaces Coated with AB Diblock Copolymers. Macromolecules, 1996, 29, 8904-8911.	4.8	22
81	Do students benefit from drawing productive diagrams themselves while solving introductory physics problems? The case of two electrostatics problems. European Journal of Physics, 2018, 39, 015703.	0.6	22
82	Active Learning in an Inequitable Learning Environment Can Increase the Gender Performance Gap: The Negative Impact of Stereotype Threat. Physics Teacher, 2020, 58, 430-433.	0.3	22
83	Surveying Turkish high school and university studentsâ€™ attitudes and approaches to physics problem solving. Physical Review Physics Education Research, 2016, 12, .	2.9	22
84	Challenges in Using Analogies. Physics Teacher, 2011, 49, 512-513.	0.3	21
85	Improving students' understanding of quantum mechanics by using peer instruction tools. AIP Conference Proceedings, 2012, , .	0.4	21
86	Studentsâ€™ sense of belonging in introductory physics course for bioscience majors predicts their grade. Physical Review Physics Education Research, 2022, 18, .	2.9	21
87	Not feeling recognized as a physics person by instructors and teaching assistants is correlated with female studentsâ€™ lower grades. Physical Review Physics Education Research, 2022, 18, .	2.9	20
88	Challenge of engaging all students via self-paced interactive electronic learning tutorials for introductory physics. Physical Review Physics Education Research, 2017, 13, .	2.9	19
89	Impact of traditional or evidence-based active-engagement instruction on introductory female and male studentsâ€™ attitudes and approaches to physics problem solving. Physical Review Physics Education Research, 2019, 15, .	2.9	19
90	Damage caused by societal stereotypes: Women have lower physics self-efficacy controlling for grade even in courses in which they outnumber men. Physical Review Physics Education Research, 2021, 17, .	2.9	19

#	Article	IF	Citations
91	How perception of learning environment predicts male and female studentsâ€™ grades and motivational outcomes in algebra-based introductory physics courses. Physical Review Physics Education Research, 2021, 17, .	2.9	19
92	Molecular Theory of the Miscibility of Hydrocarbon Blends. Macromolecules, 1995, 28, 8692-8695.	4.8	18
93	Stabilizing Properties of Copolymers Adsorbed on Heterogeneous Surfaces:Â A Model for the Interactions between a Polymer-Coated Influenza Virus and a Cell. Macromolecules, 1998, 31, 6369-6379.	4.8	18
94	How Perception of Being Recognized or Not Recognized by Instructors as a â€œPhysics Personâ€•Impacts Male and Female Studentsâ€™ Self-Efficacy and Performance. Physics Teacher, 2020, 58, 484-487.	0.3	18
95	Development of an Interactive Tutorial on Quantum Key Distribution. , 0, , .		18
96	Problem Solving and Learning. , 2009, , .		17
97	Core graduate courses: A missed learning opportunity?. AIP Conference Proceedings, 2013, , .	0.4	17
98	Effectiveness of interactive tutorials in promoting â€œwhich-pathâ€•information reasoning in advanced quantum mechanics. Physical Review Physics Education Research, 2017, 13, .	2.9	17
99	Case of two electrostatics problems: Can providing a diagram adversely impact introductory physics studentsâ€™ problem solving performance?. Physical Review Physics Education Research, 2018, 14, .	2.9	17
100	Student understanding of Symmetry and Gaussâ€™s law. AIP Conference Proceedings, 2005, , .	0.4	16
101	Investigating and improving student understanding of quantum mechanical observables and their corresponding operators in Dirac notation. European Journal of Physics, 2018, 39, 015707.	0.6	16
102	Investigating and improving introductory physics studentsâ€™ understanding of symmetry and Gaussâ€™s law. European Journal of Physics, 2018, 39, 015702.	0.6	16
103	Development and Evaluation of a Quantum Interactive Learning Tutorial on Larmor Precession Of Spin. , 0, , .		16
104	Studentsâ€™ Understanding of Stern Gerlach Experiment. AIP Conference Proceedings, 2009, , .	0.4	15
105	Representations for a spins-first approach to quantum mechanics. , 2012, , .		15
106	To use or not to use diagrams: The effect of drawing a diagram in solving introductory physics problems. , 2013, , .		15
107	Contrasting grading approaches in introductory physics and quantum mechanics: The case of graduate teaching assistants. Physical Review Physics Education Research, 2017, 13, .	2.9	15
108	Gender differences in test anxiety and self-efficacy: why instructors should emphasize low-stakes formative assessments in physics courses. European Journal of Physics, 2022, 43, 035701.	0.6	15

#	Article	IF	Citations
109	Interactive video tutorials for enhancing problem-solving, reasoning, and meta-cognitive skills of introductory physics students. AIP Conference Proceedings, 2004, , .	0.4	14
110	Developing a magnetism conceptual survey and assessing gender differences in student understanding of magnetism. AIP Conference Proceedings, 2012, , .	0.4	14
111	Teaching assistantsâ€™ beliefs regarding example solutions in introductory physics. Physical Review Physics Education Research, 2013, 9, .	1.7	14
112	What can we learn from PER: Physics Education Research?. Physics Teacher, 2014, 52, 568-569.	0.3	14
113	Learning from Mistakes: The Effect of Students' Written Self-Diagnoses on Subsequent Problem Solving. Physics Teacher, 2016, 54, 87-90.	0.3	14
114	Improving student understanding of lock-in amplifiers. American Journal of Physics, 2016, 84, 52-56.	0.7	14
115	Making sense of quantum operators, eigenstates and quantum measurements. , 2012, , .		13
116	Holistic framework to help students learn effectively from research-validated self-paced learning tools. Physical Review Physics Education Research, 2020, 16, .	2.9	13
117	Improving Student Understanding of Coulombâ€™s Law and Gaussâ€™s Law. AIP Conference Proceedings, 2007, , .	0.4	12
118	Improving Students' Conceptual Understanding of Conductors and Insulators. , 2007, , .		12
119	Students' difficulties with equations involving circuit elements. , 2012, , .		12
120	The challenges of changing teaching assistantsâ€™ grading practices: Requiring students to show evidence of understanding. Canadian Journal of Physics, 2018, 96, 420-437.	1.1	12
121	Development and evaluation of a tutorial to improve studentsâ€™ understanding of a lock-in amplifier. Physical Review Physics Education Research, 2016, 12, .	2.9	12
122	Exploring one aspect of pedagogical content knowledge of teaching assistants using the Conceptual Survey of Electricity and Magnetism. Physical Review Physics Education Research, 2018, 14, .	2.9	12
123	Physics Learning in the Context of Scaffolded Diagnostic Tasks (II): Preliminary Results. , 2007, , .		11
124	Assessing Expertise in Quantum Mechanics using Categorization Task. , 2009, , .		11
125	Should students be provided diagrams or asked to draw them while solving introductory physics problems?. , 2012, , .		11
126	Impact of evidence-based flipped or active-engagement non-flipped courses on student performance in introductory physics. Canadian Journal of Physics, 2018, 96, 411-419.	1.1	11

#	ARTICLE	IF	CITATIONS
127	Investigating and addressing student difficulties with the corrections to the energies of the hydrogen atom for the strong and weak field Zeeman effect. European Journal of Physics, 2018, 39, 045701.	0.6	11
128	Improving student understanding of quantum mechanics underlying the Sternâ€"Gerlach experiment using a research-validated multiple-choice question sequence. European Journal of Physics, 2019, 40, 055702.	0.6	11
129	Development and validation of a conceptual survey instrument to evaluate studentsâ€™ understanding of thermodynamics. Physical Review Physics Education Research, 2021, 17, .	2.9	11
130	Investigating Student Difficulties with Dirac Notation. , 0, , .		11
131	Physics Learning In The Context Of Scaffolded Diagnostic Tasks (I): The Experimental Setup. , 2007, , .		10
132	Surveying Instructorsâ€™ Attitudes and Approaches to Teaching Quantum Mechanics. , 2010, , .		10
133	Students' difficulties with quantum measurement. , 2012, , .		10
134	Investigating and addressing student difficulties with a <i>good</i> basis for finding perturbative corrections in the context of degenerate perturbation theory. European Journal of Physics, 2018, 39, 055701.	0.6	10
135	Improving student understanding of fine structure corrections to the energy spectrum of the hydrogen atom. American Journal of Physics, 2019, 87, 594-605.	0.7	10
136	Improving student understanding of corrections to the energy spectrum of the hydrogen atom for the Zeeman effect. Physical Review Physics Education Research, 2019, 15, .	2.9	10
137	Developing an Interactive Tutorial on a Quantum Eraser. , 0, , .		10
138	Developing an interactive tutorial on a Mach-Zehnder Interferometer with single photons. , 0, , .		10
139	Do female and male studentsâ€™ physics motivational beliefs change in a two-semester introductory physics course sequence?. Physical Review Physics Education Research, 2022, 18, .	2.9	10
140	Effect of Self Diagnosis on Subsequent Problem Solving Performance. , 2008, , .		9
141	Observations Of General Learning Patterns In An Upper-Level Thermal Physics Course. AIP Conference Proceedings, 2009, , .	0.4	9
142	Reflection and Self-Monitoring in Quantum Mechanics. , 2009, , .		9
143	Student difficulties in translating between mathematical and graphical representations in introductory physics. , 2013, , .		9
144	Stereotype threat? Effects of inquiring about test takersâ€™ gender on conceptual test performance in physics. AIP Conference Proceedings, 2015, , .	0.4	9

#	Article	IF	Citations
145	Women in physics in the United States: Recruitment and retention. AIP Conference Proceedings, 2015, , .	0.4	9
146	Student understanding of Fermi energy, the Fermiâ€"Dirac distribution and total electronic energy of a free electron gas. European Journal of Physics, 2020, 41, 015704.	0.6	9
147	For physics majors, gender differences in introductory physics do not inform future physics performance. European Journal of Physics, 2020, 41, 065701.	0.6	9
148	Interactive learning tutorial on quantum key distribution. Physical Review Physics Education Research, 2020, 16, .	2.9	9
149	Professional development combining cognitive apprenticeship and expectancy-value theories improves lab teaching assistantsâ€™ instructional views and practices. Physical Review Physics Education Research, 2020, 16, .	2.9	9
150	Investigating Student Difficulties with Time dependence of Expectation Values in Quantum Mechanics. , 0, , .		9
151	The impact of peer interaction on the responses to clicker questions in an upper-level quantum mechanics course. , 0, , .		9
152	Strong disorder and the nonlinear susceptibility of conjugated polymers. Physical Review B, 1992, 45, 3455-3460.	3.2	8
153	TA Beliefs in a SCALE-UP Style Classroom. , 2010, , .		8
154	Improving Studentsâ€™ Understanding of Quantum Measurement. , 2010, , .		8
155	Students' understanding of the addition of angular momentum. , 2012, , .		8
156	Investigating and improving introductory physics studentsâ€™ understanding of electric flux. European Journal of Physics, 2018, 39, 045711.	0.6	8
157	Workshop report: Intersecting identitiesâ€"gender and intersectionality in physics. AIP Conference Proceedings, 2019, , .	0.4	8
158	Improving student understanding of a system of identical particles with a fixed total energy. American Journal of Physics, 2019, 87, 583-593.	0.7	8
159	Student understanding of the first law and second law of thermodynamics. European Journal of Physics, 2021, 42, 065702.	0.6	8
160	Student difficulties with quantum states while translating state vectors in Dirac notation to wave functions in position and momentum representations. , 0, , .		8
161	Developing and evaluating a tutorial on the double-slit experiment. , 0, , .		8
162	The impact of students' epistemological framing on a task requiring representational consistency. , 0, , .		8

#	Article	IF	Citations
163	Investigation of male and female studentsâ€™ motivational characteristics throughout an introductory physics course sequence. , 0, , .		8
164	Prior preparation and motivational characteristics mediate relations between gender and learning outcomes in introductory physics. , 0, , .		8
165	Share It, Donâ€™t Split It: Can Equitable Group Work Improve Student Outcomes?. Physics Teacher, 2022, 60, 166-168.	0.3	8
166	Temperature-dependent behavior of conjugated polymers in solution. Synthetic Metals, 1994, 62, 61-70.	3.9	7
167	Attraction and Novel Phase Behavior between Like-Charged Polymer Layers. Macromolecules, 1997, 30, 7004-7007.	4.8	7
168	Centripetal acceleration: often forgotten or misinterpreted. Physics Education, 2009, 44, 464-468.	0.5	7
169	Lessons from transforming second-year honors physics lab. American Journal of Physics, 2020, 88, 838-844.	0.7	7
170	Physics teaching assistantsâ€™ views of different types of introductory problems: Challenge of perceiving the instructional benefits of context-rich and multiple-choice problems. Physical Review Physics Education Research, 2018, 14, .	2.9	7
171	Effectiveness of Group Interaction on Conceptual Standardized Test Performance. , 0, , .		7
172	Developing and evaluating an interactive tutorial on degenerate perturbation theory. , 0, , .		7
173	Physics graduate teaching assistants' beliefs about a grading rubric: Lessons learned. , 0, , .		7
174	Investigating and improving introductory physics studentsâ€™ understanding of electric field and the superposition principle: The case of a continuous charge distribution. Physical Review Physics Education Research, 2019, 15, .	2.9	7
175	â€œEveryone is new to thisâ€: Student reflections on different aspects of online learning. American Journal of Physics, 2021, 89, 1042-1047.	0.7	7
176	Whose ability and growth matter? Gender, mindset and performance in physics. International Journal of STEM Education, 2022, 9, .	5.0	7
177	Coupling Conceptual and Quantitative Problems to Develop Expertise in Introductory Physics Students. , 2008, , .		6
178	Rethinking Tools for Training Teaching Assistants. , 2009, , .		6
179	Developing Thinking & Problem Solving Skills in Introductory Mechanics. , 2010, , .		6
180	Can multiple-choice questions simulate free-response questions?. AIP Conference Proceedings, 2012, , .	0.4	6

#	Article	IF	Citations
181	Can students apply the concept of â€œwhich-pathâ€•information learned in the context of Machâ€“Zehnder interferometer to the double-slit experiment?. American Journal of Physics, 2020, 88, 542-550.	0.7	6
182	A good diagram is valuable despite the choice of a mathematical approach to problem solving. , 0, , .		6
183	Analogous Patterns of Student Reasoning Difficulties in Introductory Physics and Upper- Level Quantum Mechanics. , 0, , .		6
184	Investigating transfer of learning in advanced quantum mechanics. , 0, , .		6
185	Student difficulties with representations of quantum operators corresponding to observables. , 0, , .		6
186	Motivational characteristics of underrepresented ethnic and racial minority students in introductory physics courses. , 0, , .		6
187	Large gender differences in physics self-efficacy at equal performance levels: A warning sign?. , 0, , .		6
188	Framework for unpacking studentsâ€™ mindsets in physics by gender. Physical Review Physics Education Research, 2022, 18, .	2.9	6
189	The group administered interactive questionnaire: An alternative to individual interviews. , 2012, , .		5
190	Women in physics in the United States: Reaching toward equity and inclusion. AIP Conference Proceedings, 2019, , .	0.4	5
191	Views of female students who played the role of group leaders in introductory physics labs. European Journal of Physics, 2021, 42, 035702.	0.6	5
192	Improving accuracy in measuring the impact of online instruction on studentsâ€™ ability to transfer physics problem-solving skills. Physical Review Physics Education Research, 2021, 17, .	2.9	5
193	The effect of giving explicit incentives to correct mistakes on subsequent problem solving in quantum mechanics. , 0, , .		5
194	Instructional Goals and Grading Practices of Graduate Students after One Semester of Teaching Experience. , 0, , .		5
195	Challenges in addressing student difficulties with time-development of two-state quantum systems using a multiple-choice question sequence in virtual and in-person classes. European Journal of Physics, 2022, 43, 025704.	0.6	5
196	Exploration center for large introductory physics courses. Physics Teacher, 2000, 38, 189-190.	0.3	4
197	Self-Diagnosis, Scaffolding and Transfer: A Tale of Two Problems. , 2009, , .		4
198	Development of a Survey Instrument to Gauge Studentsâ€™ Problem-Solving Abilities. AIP Conference Proceedings, 2010, , .	0.4	4

#	Article	IF	Citations
199	Surveying Studentsâ€™ Understanding of Quantum Mechanics. AIP Conference Proceedings, 2010, , .	0.4	4
200	Does stereotype threat affect female studentsâ€™ performance in introductory physics?. AIP Conference Proceedings, 2019, , .	0.4	4
201	Graduate teaching assistantsâ€™ views of broken-into-parts physics problems: Preference for guidance overshadows development of self-reliance in problem solving. Physical Review Physics Education Research, 2020, 16, .	2.9	4
202	Grading Practices and Considerations of Graduate Students at the Beginning of their Teaching Assignment. , 0, , .		4
203	Student difficulties with determining expectation values in quantum mechanics. , 0, , .		4
204	Performance of graduate students at identifying introductory students' difficulties related to kinematics graphs. , 0, , .		4
205	Student understanding of thermodynamic processes, variables and systems. European Journal of Physics, 2022, 43, 055705.	0.6	4
206	Self-Diagnosis, Scaffolding and Transfer in a More Conventional Introductory Physics Problem. , 2009, , .		3
207	Using Analogy to Solve a Three-Step Physics Problem. AIP Conference Proceedings, 2010, , .	0.4	3
208	Comparing introductory physics and astronomy studentsâ€™ attitudes and approaches to problem solving. European Journal of Physics, 2018, 39, 065702.	0.6	3
209	Challenge of Helping Introductory Physics Students Transfer Their Learning by Engaging with a Self-Paced Learning Tutorial. Frontiers in ICT, 2018, 5, .	3.6	3
210	Physics postgraduate teaching assistantsâ€™ grading approaches: conflicting goals and practices. European Journal of Physics, 2020, 41, 055701.	0.6	3
211	Students' Conceptual Knowledge of Energy and Momentum. , 0, , .		3
212	Development and validation of a sequence of clicker questions for helping students learn addition of angular momentum in quantum mechanics. , 0, , .		3
213	Development, validation and in-class evaluation of a sequence of clicker questions on Larmor precession of spin in quantum mechanics. , 0, , .		3
214	Additional unexpected benefits of rewarding students for effective problem solving strategies: supporting gender equity in physics. Physics Education, 2022, 57, 055005.	0.5	3
215	Introduction to the Theme Issue on Experiments and Laboratories in Physics Education. American Journal of Physics, 2010, 78, 453-454.	0.7	2
216	Development of a mechanics reasoning inventory. , 2012, , .		2

#	Article	IF	Citations
217	Using analogical problem solving with different scaffolding supports to learn about friction. , 2012, , .		2
218	Measuring the effectiveness of online problem-solving tutorials by multi-level knowledge transfer. , 0, , .		2
219	Whatâ€™s happening in traditional and inquiry-based introductory labs? An integrative analysis at a large research university. , 0, , .		2
220	Random disorder and nonlinear susceptibility of conjugated polymers. Synthetic Metals, 1993, 59, 43-57.	3.9	1
221	Exploring pedagogical content knowledge of physics instructors using the force concept inventory. AIP Conference Proceedings, 2019, , .	0.4	1
222	Evaluating the effectiveness of two methods to improve students' problem solving performance after studying an online tutorial. , 0, , .		1
223	How the learning environment predicts male and female studentsâ€™ motivational beliefs in algebra-based introductory physics. , 0, , .		1
224	How learning environment predicts male and female studentsâ€™ physics motivational beliefs in introductory physics courses. , 0, , .		1
225	All aboard! Challenges and successes in professional development for physics lab TAs. , 0, , .		1
226	What Makes a Good Physics Lab Partner?. , 0, , .		1
227	Investigating and improving student understanding of the basics for a system of identical particles. American Journal of Physics, 2022, 90, 110-117.	0.7	1