N Sanjay Rebello

List of Publications by Year
in descending order

88 papers	1,190 citations	361413 20 h-index	434195 31 g-index
89 all docs	89 docs citations	89 times ranked	656 citing authors

#	Article	IF	Citations
1	Emotional and cognitive effects of learning with computer simulations and computer videogames. Journal of Computer Assisted Learning, 2022, 38, 875-891.	5.1	7
2	Supporting middle school studentsâ€™ science talk: A comparison of physical and virtual labs. Journal of Research in Science Teaching, 2021, 58, 392-419.	3.3	23
3	Classroom orchestration of computer simulations for science and engineering learning: a multiple-case study approach. International Journal of Science Education, 2021, 43, 1140-1171.	1.9	7
4	Fostering innovation through collaborative action research on the creation of shared instructional products by university science instructors. Educational Action Research, 2020, 28, 646-667.	1.5	6
5	Using eye movements to measure intrinsic, extraneous, and germane load in a multimedia learning environment.. Journal of Educational Psychology, 2020, 112, 1338-1352.	2.9	25
6	A sequenced multimodal learning approach to support students' development of conceptual learning. Journal of Computer Assisted Learning, 2019, 35, 516-528.	5.1	18
7	Designing hybrid physics labs: combining simulation and experiment for teaching computational thinking in first-year engineering. , 2019, , .		4
8	Refining Studentsâ€™ Explanations of an Unfamiliar Physical Phenomenon-Microscopic Friction. Research in Science Education, 2019, 49, 1177-1211.	2.3	3
9	Comparing retrieval-based practice and peer instruction in physics learning. Physical Review Physics Education Research, 2019, 15, .	2.9	9
10	Linking attentional processes and conceptual problem solving: visual cues facilitate the automaticity of extracting relevant information from diagrams. Frontiers in Psychology, 2014, 5, 1094.	2.1	23
11	Influence of visual cueing on students' eye movements while solving physics problems. , 2014, , .		2
12	Shifting college studentsâ€™ epistemological framing using hypothetical debate problems. Physical Review Physics Education Research, 2014, 10, .	1.7	7
13	Understanding student use of differentials in physics integration problems. Physical Review Physics Education Research, 2013, 9, .	1.7	34
14	An Interactive and Intelligent Learning System for Physics Education. IEEE Transactions on Learning Technologies, 2013, 6, 228-239.	3.2	41
15	Transfer of argumentation skills in conceptual physics problem solving. , 2013, , .		0
16	Scaffolding studentsâ€™ understanding of force in pulley systems. , 2013, , .		1
17	Characterizing student use of differential resources in physics integration problems. , 2013, , .		3
18	Comparing the use of multimedia animations and written solutions in facilitating problem solving. , 2013, , .		0

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19	Do perceptually salient elements in physics problems influence students' eye movements and answer choices?. , 2013, , .		2
20	Can short duration visual cues influence studentsâ€™ reasoning and eye movements in physics problems?. Physical Review Physics Education Research, 2013, 9, .	1.7	30
21	Using conceptual blending to describe how students use mathematical integrals in physics. Physical Review Physics Education Research, 2013, 9, .	1.7	39
22	Role of mental representations in problem solving: Studentsâ€™ approaches to nondirected tasks. Physical Review Physics Education Research, 2013, 9, .	1.7	16
23	Simple Activities to Improve Students' Understanding of Microscopic Friction. Physics Teacher, 2012, 50, 293-295.	0.3	4
24	How accurately can students estimate their performance on an exam and how does this relate to their actual performance on the exam?. AIP Conference Proceedings, 2012, , .	0.4	7
25	Comparing students' performance on research-based conceptual assessments and traditional classroom assessments. , 2012, , .		0
26	Using ScanMatch scores to understand differences in eye movements between correct and incorrect solvers on physics problems. , 2012, , .		6
27	Assessment of vertical transfer in problem solving: Mapping the problem design space. , 2012, , .		0
28	Preface: 2011 Physics Education Research Conference. , 2012, , .		1
29	What do students learn about work in physical and virtual experiments with inclined planes?. , 2012, , .		0
30	Scaffolding students' application of the 'area under a curve' concept in physics problems. , 2012, , .		1
31	Using Johnson-Laird's cognitive framework of sense-making to characterize engineering students' mental representations in kinematics. , 2012, , .		0
32	Assessing students' ability to solve introductory physics problems using integrals in symbolic and graphical representations. , 2012, , .		3
33	Adapting a theoretical framework for characterizing students' use of equations in physics problem solving. , 2012, , .		0
34	Comparing the development of students' conceptions of pulleys using physical and virtual manipulatives. , 2012, , .		2
35	Representational task formats and problem solving strategies in kinematics and work. Physical Review Physics Education Research, 2012, 8, .	1.7	43
36	Teaching integration with layers and representations: A case study. Physical Review Physics Education Research, 2012, 8, .	1.7	15

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37	Exploration of factors that affect the comparative effectiveness of physical and virtual manipulatives in an undergraduate laboratory. Physical Review Physics Education Research, 2012, 8, .	1.7	53
38	Differences in visual attention between those who correctly and incorrectly answer physics problems. Physical Review Physics Education Research, 2012, 8, .	1.7	70
39	Studentsâ€™ difficulties with integration in electricity. Physical Review Physics Education Research, 2011, 7, .	1.7	35
40	Studio optics: Adapting interactive engagement pedagogy to upper-division physics. American Journal of Physics, 2011, 79, 320-325.	0.7	10
41	Investigating studentsâ€™ mental models and knowledge construction of microscopic friction. I. Implications for curriculum design and development. Physical Review Physics Education Research, 2011, 7, .	1.7	25
42	Studentsâ€™ understanding and application of the area under the curve concept in physics problems. Physical Review Physics Education Research, 2011, 7, .	1.7	38
43	Investigating studentsâ€™ mental models and knowledge construction of microscopic friction. II. Implications for curriculum design and development. Physical Review Physics Education Research, 2011, 7, .	1.7	16
44	Investigating the Perceived Difficulty of Introductory Physics Problems. , 2010, , .		3
45	Facilitating Studentsâ€™ Problem Solving across Multiple Representations in Introductory Mechanics. AIP Conference Proceedings, 2010, , .	0.4	8
46	Comparing Student Learning in Mechanics Using Simulations and Hands-on Activities. , 2010, , .		2
47	Facilitating Strategies for Solving Work-Energy Problems in Graphical and Equational Representations. , 2010, , .		3
48	How Does Visual Attention Differ Between Experts and Novices on Physics Problems?. AIP Conference Proceedings, 2010, , .	0.4	8
49	Effects of a Prior Virtual Experience on Students' Interpretations of Real Data. , 2010, , .		0
50	Studentsâ€™ and Instructorâ€™s Impressions of Ill-structured Capstone Projects in an Advanced Electronics Lab. AIP Conference Proceedings, 2010, , .	0.4	4
51	Identifying studentsâ€™ mental models of sound propagation: The role of conceptual blending in understanding conceptual change. Physical Review Physics Education Research, 2010, 6, .	1.7	60
52	Method for analyzing studentsâ€™ utilization of prior physics learning in new contexts. Physical Review Physics Education Research, 2010, 6, .	1.7	4
53	Using Similarity Rating Tasks to Assess Case Reuse in Problem Solving. , 2009, , .		3
54	Does the Teachingâ^•Learning Interview Provide an Accurate Snapshot of Classroom Learning?. , 2009, , .		5

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55	Studentsâ€™ Difficulties in Transfer of Problem Solving Across Representations. , 2009, , .		11
56	Can We Assess Efficiency and Innovation in Transfer?. , 2009, , .		5
57	Online Data Collection and Analysis in Introductory Physics. , 2009, , .		0
58	Studentsâ€™ Understanding of Inclined Planes Using the CoMPASS Curriculum. , 2008, , .		0
59	Use Of Structure Maps To Facilitate Problem Solving In Algebra-Based Physics. , 2008, , .		0
60	Impact of a Classroom Interaction System on Student Learning. AIP Conference Proceedings, 2007, , .	0.4	17
61	Learning and Dynamic Transfer Using the â€˜Constructing Physics Understandingâ€™ (CPU) Curriculum: A Case Study. AIP Conference Proceedings, 2007, , .	0.4	1
62	Use of Physical Models to Facilitate Transfer of Physics Learning to Understand Positron Emission Tomography. AIP Conference Proceedings, 2007, , .	0.4	0
63	Hands-On and Minds-On Modeling Activities to Improve Students' Conceptions of Microscopic Friction. , 2007, , .		2
64	Students' Ideas of a Blender and Perceptions of Scaffolding Activities. , 2007, , .		0
65	Students' Perceptions of Case-Reuse Based Problem Solving in Algebra-Based Physics. , 2007, , .		1
66	Comparing Studentsâ€™ and Expertsâ€™ Understanding of the Content of a Lecture. Journal of Science Education and Technology, 2007, 16, 213-224.	3.9	36
67	College Studentsâ€™ Transfer from Calculus to Physics. AIP Conference Proceedings, 2006, , .	0.4	19
68	Teacher-Researcher Professional Development: Case Study at Kansas State University. AIP Conference Proceedings, 2006, , .	0.4	0
69	Introductory College Physics Studentsâ€™ Explanations Of Friction And Related Phenomena At The Microscopic Level. AIP Conference Proceedings, 2005, , .	0.4	2
70	Transfer Between Paired Problems In An Interview. AIP Conference Proceedings, 2005, , .	0.4	3
71	Retention and Transfer from Trigonometry to Physics. AIP Conference Proceedings, 2005, , .	0.4	9
72	The Teaching Experiment â€” What it is and what it isnâ€™t. AIP Conference Proceedings, 2004, , .	0.4	24

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73	Student Explorations of Quantum Effects in LEDs and Luminescent Devices. Physics Teacher, 2004, 42, 173-179.	0.3	21
74	The effect of distracters on student performance on the force concept inventory. American Journal of Physics, 2004, 72, 116-125.	0.7	41
75	A framework for student reasoning in an interview. AIP Conference Proceedings, 2004, , .	0.4	0
76	Implications of a framework for student reasoning in an interview. AIP Conference Proceedings, 2004, , .	0.4	1
77	Student goals and expectations in a large-enrollment physical science class. AIP Conference Proceedings, 2004, , .	0.4	0
78	Studentsâ€™ understanding and perceptions of the content of a lecture. AIP Conference Proceedings, 2004, , .	0.4	4
79	How Many Students Does It Take Before We See the Light?. Physics Teacher, 2004, 42, 216-221.	0.3	8
80	StudentsÂ models of NewtonÂs second law in mechanics and electromagnetism. European Journal of Physics, 2004, 25, 81-89.	0.6	35
81	The Vocabulary of Introductory Physics and Its Implications for Learning Physics. Physics Teacher, 2003, 41, 330-336.	0.3	27
82	Quantum mechanics for everyone: Hands-on activities integrated with technology. American Journal of Physics, 2002, 70, 252-259.	0.7	109
83	Visualizing motion in potential wells. American Journal of Physics, 1998, 66, 57-63.	0.7	43
84	Simulating the spectra of light sources. Computers in Physics, 1998, 12, 28.	0.5	11
85	Learning the physics of a scanning tunnelling microscope using a computer program. European Journal of Physics, 1997, 18, 456-461.	0.6	4
86	Computer simulation of pâ€“n junction devices. American Journal of Physics, 1997, 65, 765-773.	0.7	10
87	Designing Interactive Web Pages Using Activex. Computers in Physics, 1997, 11, 317.	0.5	1
88	Using Demoshield to Create Interactive Demos on the Web. Computers in Physics, 1997, 11, 537.	0.5	0