N g Holmes

List of Publications by Year in Descending Order

28 papers	481 citations	12 h-index	21 g-index
46 ext. papers	726 ext. citations	2.9 avg, IF	4.39 L-index

#	Paper	IF	Citations
28	Evaluating the role of student preference in physics lab group equity. *Physical Review Physics Education Research*, **2022**, 18,	2.3	1
27	Exploring the effects of omitted variable bias in physics education research. *Physical Review Physics Education Research*, **2021**, 17,	2.3	2
26	Supporting decision-making in upper-level chemical engineering laboratories. *Education for Chemical Engineers*, **2021**, 35, 69-80	2.4	3
25	Restructuring physics labs to cultivate sense of student agency. *Physical Review Physics Education Research*, **2021**, 17,	2.3	1
24	Ready student one: Exploring the predictors of student learning in virtual reality. *PLoS ONE*, **2020**, 15, e0229788	3.7	22
23	Direct Measurement of the Impact of Teaching Experimentation in Physics Labs. *Physical Review X*, **2020**, 10,	9.1	9
22	Developing scientific decision making by structuring and supporting student agency. *Physical Review Physics Education Research*, **2020**, 16,	2.3	13
21	How expectations of confirmation influence students experimentation decisions in introductory labs. *Physical Review Physics Education Research*, **2020**, 16,	2.3	4
20	Group roles in unstructured labs show inequitable gender divide. *Physical Review Physics Education Research*, **2020**, 16,	2.3	7
19	Examination of quantitative methods for analyzing data from concept inventories. *Physical Review Physics Education Research*, **2020**, 16,	2.3	5
18	Evaluating instructional labs use of deliberate practice to teach critical thinking skills. *Physical Review Physics Education Research*, **2020**, 16,	2.3	2
17	Why Traditional Labs Fail nd What We Can Do About It **2020**, 271-290		0
16	Investigating the landscape of physics laboratory instruction across North America. *Physical Review Physics Education Research*, **2020**, 16,	2.3	2
15	Operationalizing the AAPT Learning Goals for the Lab. *Physics Teacher*, **2019**, 57, 296-299	0.4	17
14	Exploring bias in mechanical engineering students' perceptions of classmates. *PLoS ONE*, **2019**, 14, e0213477	3.7	1
13	A re-examination of the fundamental parameters approach to calibration of the Curiosity rover alpha particle X-ray spectrometer. *Nuclear Instruments & Methods in Physics Research B*, **2019**, 447, 22-29	1.2	5
12	Using the Ecology and Evolution-Measuring Achievement and Progression in Science assessment to measure student thinking across the Four-Dimensional Ecology Education framework. *Ecosphere*, **2019**, 10, e02873	3.1	2

List of Publications

11	Quantifying critical thinking: Development and validation of the physics lab inventory of critical thinking. *Physical Review Physics Education Research*, **2019**, 15,	2.3	11
10	Tools for Change: Measuring Student Conceptual Understanding Across Undergraduate Biology Programs Using Bio-MAPS Assessments. *Journal of Microbiology and Biology Education*, **2019**, 20,	1.3	12
9	Value added or misattributed? A multi-institution study on the educational benefit of labs for reinforcing physics content. *Physical Review Physics Education Research*, **2017**, 13,	2.3	30
8	Examining and contrasting the cognitive activities engaged in undergraduate research experiences and lab courses. *Physical Review Physics Education Research*, **2016**, 12,	2.3	19
7	Gender gaps and gendered action in a first-year physics laboratory. *Physical Review Physics Education Research*, **2016**, 12,	2.3	26
6	Quantitative Comparisons to Promote Inquiry in the Introductory Physics Lab. *Physics Teacher*, **2015** , 53, 352-355	0.4	18
5	Teaching critical thinking. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 11199-204	11.5	79
4	Making the failure more productive: scaffolding the invention process to improve inquiry behaviors and outcomes in invention activities. *Instructional Science*, **2014**, 42, 523-538	2	38
3	Teaching Assistant Professional Development by and for TAs. *Physics Teacher*, **2013**, 51, 218-219	0.4	9
2	Evaluating metacognitive scaffolding in Guided Invention Activities. *Instructional Science*, **2012**, 40, 691-710	2	71
1	A fundamental parameters approach to calibration of the Mars Exploration Rover Alpha Particle X-ray Spectrometer. *Journal of Geophysical Research*, **2009**, 114,		12