Charles R Henderson

List of Publications by Year
in descending order

133 papers	3,871 citations	172457 29 h-index	144013 57 g-index
137 all docs	137 docs citations	137 times ranked	1689 citing authors

#	Article	IF	Citations
1	Evaluating the impact of malleable factors on percent time lecturing in gateway chemistry, mathematics, and physics courses. International Journal of STEM Education, 2022, 9, .	5.0	22
2	Design-Based Science with Communication Scaffolding Results in Productive Conversations and Improved Learning for Secondary Students. Research in Science Education, 2021, 51, 1123-1140.	2.3	12
3	What really impacts the use of active learning in undergraduate STEM education? Results from a national survey of chemistry, mathematics, and physics instructors. PLoS ONE, 2021, 16, e0247544.	2.5	47
4	Understanding Conditions for Teaching Innovation in Postsecondary Education: Development and Validation of the Survey of Climate for Instructional Improvement (SCII). International Journal of Technology in Education, 2021, 4, 166-199.	1.7	6
5	Departmental support structures for physics graduate students: Development and psychometric evaluation of a self-report instrument. Physical Review Physics Education Research, 2021, 17, .	2.9	3
6	Team-based instructional change in undergraduate STEM: characterizing effective faculty collaboration. International Journal of STEM Education, 2021, 8, .	5.0	6
7	Integrating numerical modeling into an introductory physics laboratory. American Journal of Physics, 2021, 89, 713-720.	0.7	3
8	How Western Michigan University is approaching its commitment to sustainability through sustainability-focused courses. Journal of Cleaner Production, 2020, 253, 119741.	9.3	23
9	Physics postgraduate teaching assistantsâ€™ grading approaches: conflicting goals and practices. European Journal of Physics, 2020, 41, 055701.	0.6	3
10	Educational supports and career goals of five women in a graduate astronomy program. Physical Review Physics Education Research, 2020, 16, .	2.9	9
11	Supporting improvements to undergraduate STEM instruction: an emerging model for understanding instructional change teams. International Journal of STEM Education, 2019, 6, .	5.0	15
12	Try, Try Again: The Power of Timing and Perseverance in Higher Education Reform. Change, 2019, 51, 50-57.	0.5	4
13	Faculty online learning communities: A model for sustained teaching transformation. Physical Review Physics Education Research, 2019, 15, .	2.9	21
14	Evaluating Discipline-Based Education Research for Promotion and Tenure. Innovative Higher Education, 2018, 43, 31-39.	2.5	34
15	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
16	Will my student evaluations decrease if I adopt an active learning instructional strategy?. American Journal of Physics, 2018, 86, 934-942.	0.7	9
17	Department-Level Instructional Change: Comparing Prescribed versus Emergent Strategies. CBE Life Sciences Education, 2018, 17, ar56.	2.3	7
18	Finding the leaders: an examination of social network analysis and leadership identification in STEM education change. International Journal of STEM Education, 2018, 5, 26.	5.0	25

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19	Four Perspectives for Interpreting Social Networks. , 2018, , 55-73.		1
20	Experiences of postdocs and principal investigators in physics education research postdoc hiring. Physical Review Physics Education Research, 2018, 14, .	2.9	8
21	Social Network Terminology. , 2018, , 22-29.		0
22	Creating an Instrument to Measure Student Response to Instructional Practices. Journal of Engineering Education, 2017, 106, 273-298.	3.0	39
23	Analysis of Propagation Plans in NSF-Funded Education Development Projects. Journal of Science Education and Technology, 2017, 26, 418-437.	3.9	21
24	Characteristics of well-propagated teaching innovations in undergraduate STEM. International Journal of STEM Education, 2017, 4, .	5.0	21
25	From Dissemination to Propagation: A New Paradigm for Education Developers. Change, 2017, 49, 35-42.	0.5	39
26	Towards the STEM DBER Alliance: Why we Need a Discipline-Based STEM Education Research Community. International Journal of Research in Undergraduate Mathematics Education, 2017, 3, 247-254.	1.8	7
27	Towards the STEM DBER Alliance: Why We Need a Disciplineâ€Based STEM Education Research Community. Journal of Engineering Education, 2017, 106, 349-355.	3.0	52
28	Towards the STEM DBER Alliance: why we need a discipline-based STEM education research community. International Journal of STEM Education, 2017, 4, 14.	5.0	15
29	Towards the STEM DBER Alliance: Why We Need a Discipline-Based, STEM-Education Research Community. Journal of Geoscience Education, 2017, 65, 215-218.	1.4	7
30	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
31	Introducing the Postsecondary Instructional Practices Survey (PIPS): A Concise, Interdisciplinary, and Easy-to-Score Survey. CBE Life Sciences Education, 2016, 15, ar53.	2.3	36
32	Get a room: the role of classroom space in sustained implementation of studio style instruction. International Journal of STEM Education, 2016, 3, .	5.0	30
33	Editorial: RenamingPhysical Review Special Topicsâ€"Physics Education Research. Physical Review Physics Education Research, 2016, 12, .	2.9	2
34	Enabling and challenging factors in institutional reform: The case of SCALE-UP. Physical Review Physics Education Research, 2016, 12, .	2.9	39
35	How faculty learn about and implement research-based instructional strategies: The case of Peer Instruction. Physical Review Physics Education Research, 2016, 12, .	2.9	72
36	Designing for sustained adoption: A model of developing educational innovations for successful propagation. Physical Review Physics Education Research, 2016, 12, .	2.9	36

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37	Perceived affordances and constraints regarding instructorsâ€™ use of Peer Instruction: Implications for promoting instructional change. Physical Review Physics Education Research, 2016, 12, .	2.9	39
38	Gender discrimination in physics and astronomy: Graduate student experiences of sexism and gender microaggressions. Physical Review Physics Education Research, 2016, 12, .	2.9	123
39	Describing undergraduate STEM teaching practices: a comparison of instructor self-report instruments. International Journal of STEM Education, 2015, 2, .	5.0	27
40	Supporting sustained adoption of education innovations: The Designing for Sustained Adoption Assessment Instrument. International Journal of STEM Education, 2015, 3, .	5.0	17
41	Cognitive Science Research Can Improve Undergraduate STEM Instruction. Policy Insights From the Behavioral and Brain Sciences, 2015, 2, 51-60.	2.4	9
42	Promoting instructional change: using social network analysis to understand the informal structure of academic departments. Higher Education, 2015, 70, 315-335.	4.4	46
43	Physics education research: A research subfield of physics with gender parity. Physical Review Physics Education Research, 2015, 11, .	1.7	8
44	A classroom observation instrument to assess student response to active learning. , 2014, , .		9
45	Educational trajectories of graduate students in physics education research. Physical Review Physics Education Research, 2014, 10, .	1.7	4
46	Editorial: Call for Papers Focused Collection ofPhysical Review Special Topics - Physics Education ResearchPreparing and Supporting University Physics Educators. Physical Review Physics Education Research, 2014, 10, .	1.7	2
47	Increasing the Use of Evidenceâ€Based Teaching in STEM Higher Education: A Comparison of Eight Change Strategies. Journal of Engineering Education, 2014, 103, 220-252.	3.0	272
48	Assessment of teaching effectiveness: Lack of alignment between instructors, institutions, and research recommendations. Physical Review Physics Education Research, 2014, 10, .	1.7	23
49	Editorial: Announcing PRST-PER Focused Collections. Physical Review Physics Education Research, 2014, 10, .	1.7	1
50	Diffusion of research-based instructional strategies: the case of SCALE-UP. International Journal of STEM Education, 2014, 1, .	5.0	28
51	WOMEN'S PERSISTENCE INTO GRADUATE ASTRONOMY PROGRAMS: THE ROLES OF SUPPORT, INTEREST, AND CAPITAL. Journal of Women and Minorities in Science and Engineering, 2014, 20, 317-340.	0.8	20
52	How do they get here?: Paths into physics education research. Physical Review Physics Education Research, 2013, 9, .	1.7	11
53	Faculty Grading of Quantitative Problems: A Mismatch between Values and Practice. Research in Science Education, 2013, 43, 437-455.	2.3	7
54	Estimates of Use of Research-Based Instructional Strategies in Core Electrical or Computer Engineering Courses. IEEE Transactions on Education, 2013, 56, 393-399.	2.4	98

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55	The graduate research field choice of women in academic physics and astronomy: A pilot study. , 2013, , .		3
56	Department-level change: Using social network analysis to map the hidden structure of academic departments. , 2013, , .		2
57	Successful propagation of educational innovations: Viewpoints from principal investigators and program. AIP Conference Proceedings, 2013, , .	0.4	10
58	Teaching assistantsâ€™ beliefs regarding example solutions in introductory physics. Physical Review Physics Education Research, 2013, 9, .	1.7	14
59	Fidelity of Implementation of Researchâ€Based Instructional Strategies (RBIS) in Engineering Science Courses. Journal of Engineering Education, 2013, 102, 394-425.	3.0	92
60	Successes and constraints in the enactment of a reform. , 2012, , .		0
61	The group administered interactive questionnaire: An alternative to individual interviews. , 2012, , .		5
62	Experiences of new faculty implementing research-based instructional strategies. AIP Conference Proceedings, 2012, , .	0.4	10
63	TA-designed vs. research-oriented problem solutions. , 2012, , .		3
64	Physics Education Research funding census. , 2012, , .		3
65	Faculty perspectives about instructor and institutional assessments of teaching effectiveness. AIP Conference Proceedings, 2012, , .	0.4	4
66	Use of research-based instructional strategies in introductory physics: Where do faculty leave the innovation-decision process?. Physical Review Physics Education Research, 2012, 8, .	1.7	186
67	Editorial:Physical Reviewin Physics Education Research 2.0. Physical Review Physics Education Research, 2012, 8, .	1.7	2
68	Facilitating Change in Undergraduate STEM Education. Change, 2012, 44, 52-59.	0.5	43
69	A comparison of electrical, computer, and chemical engineering facultys' progressions through the innovation-decision process. , 2012, , .		14
70	Promoting High Quality Teaching Practices in Higher Education: Lessons Learned from the USA. , 2012, , 113-137.		1
71	Facilitating change in undergraduate STEM instructional practices: An analytic review of the literature. Journal of Research in Science Teaching, 2011, 48, 952-984.	3.3	631
72	Faculty Perspectives On Using Peer Instruction: A National Study. AIP Conference Proceedings, 2010, , .	0.4	8

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73	Why Do Faculty Try Research Based Instructional Strategies?. AIP Conference Proceedings, 2010, , .	0.4	5
74	Variables that Correlate with Faculty Use of Research-Based Instructional Strategies. , 2010, , .		0
75	Instructorsâ€™ reasons for choosing problem features in a calculus-based introductory physics course. Physical Review Physics Education Research, 2010, 6, .	1.7	14
76	Is Education Getting Lost in University Mergers?. Tertiary Education and Management, 2010, 16, 327-340.	1.1	30
77	Pedagogical practices and instructional change of physics faculty. American Journal of Physics, 2010, 78, 1056-1063.	0.7	215
78	Impact of physics education research on the teaching of introductory quantitative physics in the United States. Physical Review Physics Education Research, 2009, 5, .	1.7	156
79	Publishing PER Articles in AJP and PRST-PER. American Journal of Physics, 2009, 77, 581-582.	0.7	2
80	The Impact of Physics Education Research on the Teaching of Introductory Quantitative Physics. , 2009, , .		8
81	Pedagogical Practices of Physics Faculty in the USA. , 2009, , .		3
82	Analysis of Former Learning Assistantsâ€™ Views on Cooperative Learning. , 2009, , .		9
83	Tracking Recitation Instructorsâ€™ Awareness of Student Conceptual Difficulties. AIP Conference Proceedings, 2009, , .	0.4	2
84	Rethinking Tools for Training Teaching Assistants. , 2009, , .		6
85	Quiz Corrections: Improving Learning by Encouraging Students to Reflect on Their Mistakes. Physics Teacher, 2009, 47, 581-586.	0.3	37
86	Promoting instructional change in new faculty: An evaluation of the physics and astronomy new faculty workshop. American Journal of Physics, 2008, 76, 179-187.	0.7	72
87	Facilitating Change in Undergraduate STEM: Initial Results from an Interdisciplinary Literature Review. , 2008, , .		7
88	Analysis of Learning Assistantsâ€™ Views of Teaching and Learning. , 2008, , .		5
89	Improving educational change agentsâ€™ efficacy in science, engineering, and mathematics education. Research in Social Problems and Public Policy, 2008, , 227-255.	0.2	5
90	13: Co-Teaching as a Faculty Development Model. To Improve the Academy, 2008, 26, 199-216.	0.4	5

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91	Diffusion of Educational Innovations via Co-Teaching. AIP Conference Proceedings, 2007, , .	0.4	1
92	Physics faculty beliefs and values about the teaching and learning of problem solving. II. Procedures for measurement and analysis. Physical Review Physics Education Research, 2007, 3, .	1.7	13
93	Barriers to the use of research-based instructional strategies: The influence of both individual and situational characteristics. Physical Review Physics Education Research, 2007, 3, .	1.7	290
94	Physics faculty beliefs and values about the teaching and learning of problem solving. I. Mapping the common core. Physical Review Physics Education Research, 2007, 3, .	1.7	43
95	Framework for articulating instructional practices and conceptions. Physical Review Physics Education Research, 2007, 3, .	1.7	41
96	Modeling Success: Building Community for Reform. , 2007, , .		2
97	Promoting Instructional Change in New Faculty: An Evaluation of the Physics and Astronomy New Faculty Workshop. , 2007, , .		2
98	Teaching about circuits at the introductory level: An emphasis on potential difference. American Journal of Physics, 2006, 74, 324-328.	0.7	20
99	Physics Faculty and Educational Researchers: Divergent Expectations as Barriers to the Diffusion of Innovations. AIP Conference Proceedings, 2006, , .	0.4	4
100	New Directions for Physics Education Research: A Broad Perspective Analysis. AIP Conference Proceedings, 2006, , .	0.4	0
101	Teaching, Learning and Physics Education Research: Views of Mainstream Physics Professors. AIP Conference Proceedings, 2005, , .	0.4	5
102	Beyond the Individual Instructor: Systemic Constraints in the Implementation of Research-Informed Practices. AIP Conference Proceedings, 2005, , .	0.4	17
103	The challenges of instructional change under the best of circumstances: A case study of one college physics instructor. American Journal of Physics, 2005, 73, 778-786.	0.7	47
104	Easier Said Than Done: A Case Study of Instructional Change Under the Best of Circumstances. AIP Conference Proceedings, 2004, , .	0.4	1
105	Grading student problem solutions: The challenge of sending a consistent message. American Journal of Physics, 2004, 72, 164-169.	0.7	33
106	Common Concerns About the Force Concept Inventory. Physics Teacher, 2002, 40, 542-547.	0.3	77
107	Measuring the forces required for circular motion. Physics Teacher, 1998, 36, 118-121.	0.3	2
108	The Variation of Nontraditional Teaching Methods Across 17 Undergraduate Engineering Classrooms. , 0, , .		5

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109	Instructorsâ€™ Beliefs and Values about Learning Problem Solving. , 0, , .		7
110	Over One Hundred Million Simulations Delivered: A Case Study of the PhET Interactive Simulations. , 0, , .		4
111	Understanding Women's Gendered Experiences in Physics and Astronomy Through Microaggressions. , 0, , .		2
112	Learning About Educational Change Strategies: A Study of the Successful Propagation of Peer Instruction. , 0, , .		1
113	Grading Practices and Considerations of Graduate Students at the Beginning of their Teaching Assignment. , 0, , .		4
114	Characteristics of well-propagated undergraduate STEM teaching innovations. , 0, , .		2
115	Using asynchronous communication to support virtual faculty learning communities. , 0, , .		2
116	Physics graduate teaching assistants' beliefs about a grading rubric: Lessons learned. , 0, , .		7
117	Instructors' Ideas about Problem Solving - Grading. , 0, , .		3
118	Instructorsâ€™ Ideas about Problem Solving â€“ Setting Goals. , 0, , .		7
119	Understanding Educational Transformation: Findings from a Survey of Past Participants of the Physics and Astronomy New Faculty Workshop. , 0, , .		0
120	SCALE-UP Implementation and Intra-Institutional Dissemination: A Case Study of Two Institutions. , 0, , .		2
121	Instructional Goals and Grading Practices of Graduate Students after One Semester of Teaching Experience. , 0, , .		5
122	Faculty Online Learning Communities to support physics teaching. , 0, , .		3
123	Graduate teaching assistants use different criteria when grading introductory physics vs. quantum mechanics problems. , 0, , .		4
124	Supporting faculty and staff to make better use of learning analytics data. , 0, , .		0
125	Participants' perceptions of the Faculty Online Learning Community (FOLC) experience. , 0, , .		0
126	Do learning communities encourage potential STEM majors?. , 0, , .		0

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127	Managing teams for instructional change: Understanding three types of diversity. , 0, , .		0
128	An Analysis of Community Formation in Faculty Online Learning Communities. , 0, , .		0
129	Institutionalizing Campus Innovation and Entrepreneurship Programming by Optimizing a Faculty Grantmaking Process: A Case Study. , 0, , .		0
130	More Than Good Curricula: A Guide For Curricular Change Agents. , 0, , .		2
131	A Systematic Literature Review on Improving Success of Women Engineering Students in the U.S.. , 0, , .		0
132	A Systematic Literature Review on Improving Success of Women Engineering Students in the United States. , 0, , .		0
133	Examining the Diffusion of Research-Based Instructional Strategies Using Social Network Analysis: A Case Study of SCALE-UP. , 0, , .		1