

Charles Reichhardt

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

251
papers

8,680
citations

45
h-index

83
g-index

284
ext. papers

10,218
ext. citations

4.2
avg, IF

6.64
L-index

#	Paper	IF	Citations
251	Active particles in complex and crowded environments. <i>Reviews of Modern Physics</i> , 2016 , 88,	40.5	1228
250	Nonequilibrium Dynamic Phase Diagram for Vortex Lattices. <i>Physical Review Letters</i> , 1998 , 81, 3757-3760	7.4	293
249	Dynamic Phases of Vortices in Superconductors with Periodic Pinning. <i>Physical Review Letters</i> , 1997 , 78, 2648-2651	7.4	232
248	Commensurate and incommensurate vortex states in superconductors with periodic pinning arrays. <i>Physical Review B</i> , 1998 , 57, 7937-7943	3.3	223
247	Superconducting Fluxon Pumps and Lenses. <i>Physical Review Letters</i> , 1999 , 83, 5106-5109	7.4	208
246	Particle model for skyrmions in metallic chiral magnets: Dynamics, pinning, and creep. <i>Physical Review B</i> , 2013 , 87,	3.3	176
245	Rectification of swimming bacteria and self-driven particle systems by arrays of asymmetric barriers. <i>Physical Review Letters</i> , 2008 , 101, 018102	7.4	160
244	Nonequilibrium dynamic phases and plastic flow of driven vortex lattices in superconductors with periodic arrays of pinning sites. <i>Physical Review B</i> , 1998 , 58, 6534-6564	3.3	157
243	Phase Locking, Devil's Staircases, Farey Trees, and Arnold Tongues in Driven Vortex Lattices with Periodic Pinning. <i>Physical Review Letters</i> , 1999 , 82, 414-417	7.4	147
242	Depinning and nonequilibrium dynamic phases of particle assemblies driven over random and ordered substrates: a review. <i>Reports on Progress in Physics</i> , 2017 , 80, 026501	14.4	125
241	Collective transport properties of driven Skyrmions with random disorder. <i>Physical Review Letters</i> , 2015 , 114, 217202	7.4	123
240	Spatiotemporal dynamics and plastic flow of vortices in superconductors with periodic arrays of pinning sites. <i>Physical Review B</i> , 1996 , 54, 16108-16115	3.3	120
239	Onset of irreversibility and chaos in amorphous solids under periodic shear. <i>Physical Review E</i> , 2013 , 88, 062401	2.4	112
238	Collective interaction-driven ratchet for transporting flux quanta. <i>Physical Review Letters</i> , 2001 , 87, 177002	7.4	109
237	Reversibility and criticality in amorphous solids. <i>Nature Communications</i> , 2015 , 6, 8805	17.4	105
236	Ratchet Effects in Active Matter Systems. <i>Annual Review of Condensed Matter Physics</i> , 2017 , 8, 51-75	19.7	102
235	ac current generation in chiral magnetic insulators and Skyrmion motion induced by the spin Seebeck effect. <i>Physical Review Letters</i> , 2014 , 112, 187203	7.4	92

234	Critical currents and vortex states at fractional matching fields in superconductors with periodic pinning. <i>Physical Review B</i> , 2001 , 63,	3.3	91
233	Fractal Networks, Braiding Channels, and Voltage Noise in Intermittently Flowing Rivers of Quantized Magnetic Flux. <i>Physical Review Letters</i> , 1998 , 80, 2197-2200	7.4	91
232	Novel colloidal crystalline states on two-dimensional periodic substrates. <i>Physical Review Letters</i> , 2002 , 88, 248301	7.4	86
231	Multiscaling at Point J: jamming is a critical phenomenon. <i>Physical Review Letters</i> , 2005 , 95, 088001	7.4	85
230	Realizing colloidal artificial ice on arrays of optical traps. <i>Physical Review Letters</i> , 2006 , 97, 228302	7.4	84
229	Superconducting vortex avalanches, voltage bursts, and vortex plastic flow: Effect of the microscopic pinning landscape on the macroscopic properties. <i>Physical Review B</i> , 1997 , 56, 6175-6194	3.3	81
228	Casimir effect in active matter systems. <i>Physical Review E</i> , 2014 , 90, 013019	2.4	80
227	Complex dynamical flow phases and pinning in superconductors with rectangular pinning arrays. <i>Physical Review B</i> , 2001 , 64,	3.3	80
226	Colloidal dynamics on disordered substrates. <i>Physical Review Letters</i> , 2002 , 89, 078301	7.4	80
225	Vortex plastic flow, local flux density, magnetization hysteresis loops, and critical current, deep in the Bose-glass and Mott-insulator regimes. <i>Physical Review B</i> , 1996 , 53, R8898-R8901	3.3	80
224	Active matter transport and jamming on disordered landscapes. <i>Physical Review E</i> , 2014 , 90, 012701	2.4	78
223	Driven Skyrmions and dynamical transitions in chiral magnets. <i>Physical Review Letters</i> , 2013 , 110, 207202	7.4	75
222	Creating artificial ice states using vortices in nanostructured superconductors. <i>Physical Review Letters</i> , 2009 , 102, 237004	7.4	75
221	Reversible to irreversible flow transition in periodically driven vortices. <i>Physical Review Letters</i> , 2008 , 100, 187002	7.4	73
220	Moving Wigner glasses and smectics: dynamics of disordered Wigner crystals. <i>Physical Review Letters</i> , 2001 , 86, 4354-7	7.4	71
219	Reversible vortex ratchet effects and ordering in superconductors with simple asymmetric potential arrays. <i>Physical Review B</i> , 2007 , 75,	3.3	68
218	Noise fluctuations and drive dependence of the skyrmion Hall effect in disordered systems. <i>New Journal of Physics</i> , 2016 , 18, 095005	2.9	63
217	Strongly enhanced pinning of magnetic vortices in type-II superconductors by conformal crystal arrays. <i>Physical Review Letters</i> , 2013 , 110, 267001	7.4	62

216	Dynamical ordering of driven stripe phases in quenched disorder. <i>Physical Review Letters</i> , 2003 , 90, 026401	7.4	59
215	Random organization and plastic depinning. <i>Physical Review Letters</i> , 2009 , 103, 168301	7.4	57
214	Quantized transport for a skyrmion moving on a two-dimensional periodic substrate. <i>Physical Review B</i> , 2015 , 91,	3.3	56
213	Vortices freeze like window glass: the vortex molasses scenario. <i>Physical Review Letters</i> , 2000 , 84, 1994-7	7.4	55
212	Microscopic derivation of magnetic-flux-density profiles, magnetization hysteresis loops, and critical currents in strongly pinned superconductors. <i>Physical Review B</i> , 1995 , 52, 10441-10446	3.3	53
211	Individual and multiple vortex pinning in systems with periodic pinning arrays. <i>Physical Review B</i> , 2001 , 64,	3.3	52
210	Ratchet cellular automata. <i>Physical Review Letters</i> , 2003 , 90, 247004	7.4	51
209	Fluctuating topological defects in 2D liquids: heterogeneous motion and noise. <i>Physical Review Letters</i> , 2003 , 90, 095504	7.4	49
208	Depinning by fracture in a glassy background. <i>Physical Review Letters</i> , 2003 , 90, 098302	7.4	48
207	Collective multivortex states in periodic arrays of traps. <i>Physical Review Letters</i> , 2000 , 85, 2372-5	7.4	46
206	Dynamical ordering and directional locking for particles moving over quasicrystalline substrates. <i>Physical Review Letters</i> , 2011 , 106, 060603	7.4	44
205	Charge transport transitions and scaling in disordered arrays of metallic dots. <i>Physical Review Letters</i> , 2003 , 90, 046802	7.4	44
204	Point-defect dynamics in two-dimensional colloidal crystals. <i>Physical Review E</i> , 2007 , 75, 011403	2.4	43
203	Local melting and drag for a particle driven through a colloidal crystal. <i>Physical Review Letters</i> , 2004 , 92, 108301	7.4	43
202	Commensurate and incommensurate vortex lattice melting in periodic pinning arrays. <i>Physical Review B</i> , 2001 , 64,	3.3	42
201	Dynamic phases of active matter systems with quenched disorder. <i>Physical Review E</i> , 2017 , 95, 032606	2.4	41
200	Origin of reversed vortex ratchet motion. <i>Physical Review Letters</i> , 2007 , 99, 247002	7.4	41
199	Realizing three-dimensional artificial spin ice by stacking planar nano-arrays. <i>Applied Physics Letters</i> , 2014 , 104, 013101	3.4	40

198	Dynamics and separation of circularly moving particles in asymmetrically patterned arrays. <i>Physical Review E</i> , 2013 , 88, 042306	2.4	40
197	Manipulation of skyrmions in nanodisks with a current pulse and skyrmion rectifier. <i>Applied Physics Letters</i> , 2013 , 102, 222405	3.4	40
196	Structural transitions, melting, and intermediate phases for stripe- and clump-forming systems. <i>Physical Review E</i> , 2010 , 82, 041502	2.4	40
195	Aspects of jamming in two-dimensional athermal frictionless systems. <i>Soft Matter</i> , 2014 , 10, 2932-44	3.6	39
194	Vortex molecular crystal and vortex plastic crystal states in honeycomb and kagom π pinning arrays. <i>Physical Review B</i> , 2007 , 76,	3.3	38
193	Rectification and phase locking for particles on symmetric two-dimensional periodic substrates. <i>Physical Review Letters</i> , 2002 , 89, 024101	7.4	36
192	Phase-locking of vortex lattices interacting with periodic pinning. <i>Physical Review B</i> , 2000 , 61, R11914-R11917	3.9	36
191	Vortex Plastic Motion in Twinned Superconductors. <i>Physical Review Letters</i> , 1996 , 77, 3625-3628	7.4	36
190	Magnus-induced ratchet effects for skyrmions interacting with asymmetric substrates. <i>New Journal of Physics</i> , 2015 , 17, 073034	2.9	35
189	Absorbing phase transitions and dynamic freezing in running active matter systems. <i>Soft Matter</i> , 2014 , 10, 7502-10	3.6	35
188	Dynamics, rectification, and fractionation for colloids on flashing substrates. <i>Physical Review Letters</i> , 2006 , 96, 188301	7.4	35
187	Active matter ratchets with an external drift. <i>Physical Review E</i> , 2013 , 88, 062310	2.4	34
186	Bidirectional sorting of flocking particles in the presence of asymmetric barriers. <i>Physical Review E</i> , 2012 , 85, 056102	2.4	34
185	Fibrillar templates and soft phases in systems with short-range dipolar and long-range interactions. <i>Physical Review Letters</i> , 2004 , 92, 016801	7.4	34
184	Structure and melting of two-species charged clusters in a parabolic trap. <i>Physical Review E</i> , 2003 , 68, 060401	2.4	34
183	Fluctuations and noise signatures of driven magnetic skyrmions. <i>Physical Review B</i> , 2017 , 96,	3.3	33
182	Fluctuations, jamming, and yielding for a driven probe particle in disordered disk assemblies. <i>Physical Review E</i> , 2010 , 82, 051306	2.4	32
181	Moving vortex phases, dynamical symmetry breaking, and jamming for vortices in honeycomb pinning arrays. <i>Physical Review B</i> , 2008 , 78,	3.3	32

180	Depinning and dynamics of systems with competing interactions in quenched disorder. <i>Europhysics Letters</i> , 2003 , 61, 221-227	1.6	32
179	Active microrheology in active matter systems: Mobility, intermittency, and avalanches. <i>Physical Review E</i> , 2015 , 91, 032313	2.4	31
178	Jamming in granular polymers. <i>Physical Review E</i> , 2011 , 84, 011303	2.4	31
177	Transport anisotropy as a probe of the interstitial vortex state in superconductors with artificial pinning arrays. <i>Physical Review B</i> , 2009 , 79,	3.3	31
176	Directional locking effects and dynamics for particles driven through a colloidal lattice. <i>Physical Review E</i> , 2004 , 69, 041405	2.4	31
175	Commensurability effects at nonmatching fields for vortices in diluted periodic pinning arrays. <i>Physical Review B</i> , 2007 , 76,	3.3	30
174	Clogging and depinning of ballistic active matter systems in disordered media. <i>Physical Review E</i> , 2018 , 97, 052613	2.4	30
173	Rectification and flux reversals for vortices interacting with triangular traps. <i>Physica C: Superconductivity and Its Applications</i> , 2005 , 432, 125-132	1.3	29
172	Hysteretic depinning and dynamical melting for magnetically interacting vortices in disordered layered superconductors. <i>Physical Review B</i> , 2001 , 64,	3.3	29
171	Transverse depinning in strongly driven vortex lattices with disorder. <i>Physical Review B</i> , 2000 , 61, R3811-R3814	3.3	29
170	Shapiro steps for skyrmion motion on a washboard potential with longitudinal and transverse ac drives. <i>Physical Review B</i> , 2015 , 92,	3.3	28
169	Multi-step ordering in kagome and square artificial spin ice. <i>New Journal of Physics</i> , 2012 , 14, 025006	2.9	28
168	Cooperative behavior and pattern formation in mixtures of driven and nondriven colloidal assemblies. <i>Physical Review E</i> , 2006 , 74, 011403	2.4	28
167	Absolute transverse mobility and ratchet effect on periodic two-dimensional symmetric substrates. <i>Physical Review E</i> , 2003 , 68, 046102	2.4	28
166	Reversible ratchet effects for vortices in conformal pinning arrays. <i>Physical Review B</i> , 2015 , 91,	3.3	27
165	Plastic flow, voltage noise and vortex avalanches in superconductors. <i>Physica C: Superconductivity and Its Applications</i> , 1997 , 290, 89-97	1.3	27
164	Colloquium: Ice rule and emergent frustration in particle ice and beyond. <i>Reviews of Modern Physics</i> , 2019 , 91,	40.5	27
163	Hysteresis and return-point memory in colloidal artificial spin ice systems. <i>Physical Review E</i> , 2012 , 86, 021406	2.4	26

162	Ratchet-induced segregation and transport of nonspherical grains. <i>Physical Review E</i> , 2002 , 65, 031308	2.4	26
161	Metastability and transient effects in vortex matter near a decoupling transition. <i>Physical Review B</i> , 2003 , 67,	3.3	25
160	Clogging and jamming transitions in periodic obstacle arrays. <i>Physical Review E</i> , 2017 , 95, 030902	2.4	24
159	Crossover from Jamming to Clogging Behaviours in Heterogeneous Environments. <i>Scientific Reports</i> , 2018 , 8, 10252	4.9	23
158	Dynamic regimes for driven colloidal particles on a periodic substrate at commensurate and incommensurate fillings. <i>Physical Review E</i> , 2013 , 88, 062301	2.4	23
157	Dynamic regimes and spontaneous symmetry breaking for driven colloids on triangular substrates. <i>Europhysics Letters</i> , 2004 , 68, 303-309	1.6	23
156	Effect of grain anisotropy on ordering, stability and dynamics in granular systems. <i>Europhysics Letters</i> , 2002 , 57, 904-910	1.6	23
155	Dynamic vortex phases and pinning in superconductors with twin boundaries. <i>Physical Review B</i> , 2000 , 61, 3665-3671	3.3	23
154	Emergent geometric frustration of artificial magnetic skyrmion crystals. <i>Physical Review B</i> , 2016 , 94,	3.3	23
153	Enhanced pinning for vortices in hyperuniform pinning arrays and emergent hyperuniform vortex configurations with quenched disorder. <i>Physical Review B</i> , 2017 , 96,	3.3	22
152	Pinning, ordering, and dynamics of vortices in conformal crystal and gradient pinning arrays. <i>Physical Review B</i> , 2014 , 90,	3.3	22
151	Jamming in systems with quenched disorder. <i>Physical Review E</i> , 2012 , 86, 061301	2.4	22
150	Reversible vector ratchets for skyrmion systems. <i>Physical Review B</i> , 2017 , 95,	3.3	20
149	Negative differential mobility and trapping in active matter systems. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 015404	1.8	20
148	Commensurability, jamming, and dynamics for vortices in funnel geometries. <i>Physical Review B</i> , 2010 , 81,	3.3	20
147	Vortex configurations and dynamics in elliptical pinning sites for high matching fields. <i>Physical Review B</i> , 2006 , 73,	3.3	20
146	Melting of moving vortex lattices in systems with periodic pinning. <i>Physical Review B</i> , 2000 , 61, 14354-14357	3.3	20
145	Avalanche dynamics for active matter in heterogeneous media. <i>New Journal of Physics</i> , 2018 , 20, 025002	2.9	20

144	Crossover from intermittent to continuum dynamics for locally driven colloids. <i>Physical Review Letters</i> , 2006 , 96, 028301	7.4	19
143	Noise at the crossover from Wigner liquid to Wigner glass. <i>Physical Review Letters</i> , 2004 , 93, 176405	7.4	19
142	Magnus-induced dynamics of driven skyrmions on a quasi-one-dimensional periodic substrate. <i>Physical Review B</i> , 2016 , 94,	3.3	18
141	Collective ratchet effects and reversals for active matter particles on quasi-one-dimensional asymmetric substrates. <i>Soft Matter</i> , 2016 , 12, 8606-8615	3.6	18
140	Collective transport for active matter run-and-tumble disk systems on a traveling-wave substrate. <i>Physical Review E</i> , 2017 , 95, 012607	2.4	18
139	Anisotropic sliding dynamics, peak effect, and metastability in stripe systems. <i>Physical Review E</i> , 2011 , 83, 041501	2.4	18
138	Spontaneous transverse response and amplified switching in superconductors with honeycomb pinning arrays. <i>Physical Review Letters</i> , 2008 , 100, 167002	7.4	18
137	Pinning and dynamics of colloids on one-dimensional periodic potentials. <i>Physical Review E</i> , 2005 , 72, 032401	2.4	18
136	Phase-locking of driven vortex lattices with transverse ac force and periodic pinning. <i>Physical Review B</i> , 2001 , 64,	3.3	18
135	Topological Invariants in Microscopic Transport on Rough Landscapes: Morphology, Hierarchical Structure, and Horton Analysis of Riverlike Networks of Vortices. <i>Physical Review Letters</i> , 1999 , 82, 3641-3644	7.4	18
134	Transverse ac-driven and geometric ratchet effects for vortices in conformal crystal pinning arrays. <i>Physical Review B</i> , 2016 , 93,	3.3	17
133	Dynamic phases, pinning, and pattern formation for driven dislocation assemblies. <i>Scientific Reports</i> , 2015 , 5, 8000	4.9	17
132	Statics and dynamics of Yukawa cluster crystals on ordered substrates. <i>Physical Review E</i> , 2012 , 85, 051401	4.1	17
131	Ordering and melting in colloidal molecular crystal mixtures. <i>Physical Review E</i> , 2005 , 71, 062403	2.4	17
130	Thermal creep and the skyrmion Hall angle in driven skyrmion crystals. <i>Journal of Physics Condensed Matter</i> , 2019 , 31, 07LT01	1.8	17
129	Skyrmion Lattice Topological Hall Effect near Room Temperature. <i>Scientific Reports</i> , 2018 , 8, 15510	4.9	17
128	Avalanches and disorder-induced criticality in artificial spin ices. <i>New Journal of Physics</i> , 2014 , 16, 063051	2.9	16
127	Stabilizing fractional vortices in multiband superconductors with periodic pinning arrays. <i>Physical Review B</i> , 2013 , 87,	3.3	16

126	Velocity force curves, laning, and jamming for oppositely driven disk systems. <i>Soft Matter</i> , 2018 , 14, 490-498	16
125	Ice rule fragility via topological charge transfer in artificial colloidal ice. <i>Nature Communications</i> , 2018 , 9, 4146	17.4 16
124	Inner Phases of Colloidal Hexagonal Spin Ice. <i>Physical Review Letters</i> , 2018 , 120, 027204	7.4 15
123	Dynamical Freezing of active matter. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 19099-100	11.5 15
122	Hysteresis and noise in stripe- and clump-forming systems. <i>Europhysics Letters</i> , 2005 , 72, 444-450	1.6 15
121	Critical depinning force and vortex lattice order in disordered superconductors. <i>Physical Review B</i> , 2001 , 64,	3.3 15
120	Nonequilibrium phases and segregation for skyrmions on periodic pinning arrays. <i>Physical Review B</i> , 2018 , 98,	3.3 15
119	Structural transitions and dynamical regimes for directional locking of vortices and colloids driven over periodic substrates. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 225702	1.8 14
118	Dynamics and melting of stripes, crystals, and bubbles with quenched disorder. <i>Physica D: Nonlinear Phenomena</i> , 2004 , 193, 303-309	3.3 14
117	Braiding Majorana fermions and creating quantum logic gates with vortices on a periodic pinning structure. <i>Physical Review B</i> , 2020 , 101,	3.3 13
116	Avalanches and Criticality in Driven Magnetic Skyrmions. <i>Physical Review Letters</i> , 2018 , 120, 117203	7.4 13
115	Laning and clustering transitions in driven binary active matter systems. <i>Physical Review E</i> , 2018 , 98, 022603	6.3 13
114	Reversible to irreversible transitions in periodically driven skyrmion systems. <i>New Journal of Physics</i> , 2019 , 21, 013001	2.9 13
113	Doped colloidal artificial spin ice. <i>New Journal of Physics</i> , 2015 , 17, 103010	2.9 13
112	Nonequilibrium phases for driven particle systems with effective orientational degrees of freedom. <i>Physical Review E</i> , 2009 , 79, 061403	2.4 13
111	Nonlinear dynamics, rectification, and phase locking for particles on symmetrical two-dimensional periodic substrates with dc and circular ac drives. <i>Physical Review E</i> , 2004 , 69, 056115	2.4 13
110	Reversibility, pattern formation, and edge transport in active chiral and passive disk mixtures. <i>Journal of Chemical Physics</i> , 2019 , 150, 064905	3.9 12
109	Nonlinear transport, dynamic ordering, and clustering for driven skyrmions on random pinning. <i>Physical Review B</i> , 2019 , 99,	3.3 12

108	Commensurate states and pattern switching via liquid crystal skyrmions trapped in a square lattice. <i>Soft Matter</i> , 2020 , 16, 3338-3343	3.6	12
107	Controlled Fluidization, Mobility, and Clogging in Obstacle Arrays Using Periodic Perturbations. <i>Physical Review Letters</i> , 2018 , 121, 068001	7.4	12
106	Random organization in periodically driven gliding dislocations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014 , 378, 1675-1678	2.3	12
105	Dislocation-induced anomalous softening of solid helium. <i>Philosophical Magazine Letters</i> , 2012 , 92, 608-616	6.1	12
104	Viscous decoupling transitions for individually dragged particles in systems with quenched disorder. <i>Physical Review E</i> , 2008 , 78, 011402	2.4	12
103	Dewetting and spreading transitions for active matter on random pinning substrates. <i>Journal of Chemical Physics</i> , 2017 , 146, 204903	3.9	11
102	Static and dynamic phases for magnetic vortex matter with attractive and repulsive interactions. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 345703	1.8	11
101	Phonon spectra of two-dimensional liquid dusty plasmas on a one-dimensional periodic substrate. <i>Physical Review E</i> , 2018 , 98,	2.4	11
100	Oriental ordering, buckling, and dynamic transitions for vortices interacting with a periodic quasi-one-dimensional substrate. <i>Physical Review B</i> , 2016 , 93,	3.3	10
99	Dynamic phases, clustering, and chain formation for driven disk systems in the presence of quenched disorder. <i>Physical Review E</i> , 2017 , 95, 042902	2.4	10
98	Switching and jamming transistor effect for vortex matter in honeycomb pinning arrays with ac drives. <i>Physical Review B</i> , 2010 , 81,	3.3	10
97	Re-entrant disordering of colloidal molecular crystals on two-dimensional periodic substrates. <i>Journal of Physics Condensed Matter</i> , 2004 , 16, 7909-7916	1.8	10
96	Shear banding, intermittency, jamming, and dynamic phases for skyrmions in inhomogeneous pinning arrays. <i>Physical Review B</i> , 2020 , 101,	3.3	9
95	Active microrheology, Hall effect, and jamming in chiral fluids. <i>Physical Review E</i> , 2019 , 100, 012604	2.4	9
94	Domain and stripe formation between hexagonal and square ordered fillings of colloidal particles on periodic pinning substrates. <i>Soft Matter</i> , 2013 , 9, 4607	3.6	9
93	Shapiro spikes and negative mobility for skyrmion motion on quasi-one-dimensional periodic substrates. <i>Physical Review B</i> , 2017 , 95,	3.3	9
92	Pinning, flux diodes and ratchets for vortices interacting with conformal pinning arrays. <i>Physica C: Superconductivity and Its Applications</i> , 2017 , 533, 148-153	1.3	9
91	Positive and negative drag, dynamic phases, and commensurability in coupled one-dimensional channels of particles with Yukawa interactions. <i>Physical Review E</i> , 2011 , 83, 061404	2.4	9

90	Ratchet effect and nonlinear transport for particles on random substrates with crossed ac drives. <i>Physical Review E</i> , 2006 , 73, 011102	2.4	9
89	Devil's staircase and disordering transitions in sliding vortices and Wigner crystals on random substrates with transverse driving. <i>Physical Review B</i> , 2007 , 76,	3.3	9
88	Comment on Peak Effect and the Transition from Elastic to Plastic Depinning <i>Physical Review Letters</i> , 1999 , 83, 2282-2282	7.4	9
87	Skyrmion dynamics and topological sorting on periodic obstacle arrays. <i>New Journal of Physics</i> , 2020 , 22, 053025	2.9	8
86	Plastic response of dislocation glide in solid helium under dc strain-rate loading. <i>Physical Review B</i> , 2013 , 88,	3.3	8
85	Dynamic Control of Topological Defects in Artificial Colloidal Ice. <i>Scientific Reports</i> , 2017 , 7, 651	4.9	8
84	Frustrated colloidal ordering and fully packed loops in arrays of optical traps. <i>Physical Review E</i> , 2013 , 87, 062305	2.4	8
83	Characterizing plastic depinning dynamics with the fluctuation theorem. <i>European Physical Journal E</i> , 2011 , 34, 117	1.5	8
82	Pattern switching and polarizability for colloids in optical-trap arrays. <i>Physical Review E</i> , 2009 , 80, 022401	1.4	8
81	Transverse commensurability effect for vortices in periodic pinning arrays. <i>Physical Review B</i> , 2008 , 78,	3.3	8
80	Coarsening of topological defects in oscillating systems with quenched disorder. <i>Physical Review E</i> , 2006 , 73, 046122	2.4	8
79	Frustration and melting of colloidal molecular crystals. <i>Journal of Physics A</i> , 2003 , 36, 5841-5845		8
78	Structures and diffusion of two-dimensional dusty plasmas on one-dimensional periodic substrates. <i>Physical Review E</i> , 2018 , 98,	2.4	8
77	Depinning dynamics of two-dimensional dusty plasmas on a one-dimensional periodic substrate. <i>Physical Review E</i> , 2019 , 100, 033207	2.4	7
76	Avalanches, plasticity, and ordering in colloidal crystals under compression. <i>Physical Review E</i> , 2016 , 93, 062607	2.4	7
75	Dynamics of skyrmions in chiral magnets: Dynamic phase transitions and equation of motion. <i>Journal of Applied Physics</i> , 2014 , 115, 17D109	2.5	7
74	Electrophoresis of DNA on a disordered two-dimensional substrate. <i>Physical Review E</i> , 2006 , 74, 051908	2.4	7
73	Stripes, clusters, and nonequilibrium ordering for bidisperse colloids with repulsive interactions. <i>Physical Review E</i> , 2007 , 75, 040402	2.4	7

72	Manipulation of individual superconducting vortices and stick-slip motion in periodic pinning arrays. <i>Physical Review B</i> , 2018 , 97,	3.3	7
71	Vortex transport and pinning in conformal pinning arrays. <i>Physica C: Superconductivity and Its Applications</i> , 2014 , 503, 123-127	1.3	6
70	Disordering transitions and peak effect in polydisperse particle systems. <i>Physical Review E</i> , 2008 , 77, 041401	2.4	6
69	Heterogeneities and topological defects in two-dimensional pinned liquids. <i>Physical Review E</i> , 2006 , 73, 061401	2.4	6
68	Defect fluctuations and lifetimes in disordered Yukawa systems. <i>Physical Review E</i> , 2007 , 75, 051407	2.4	6
67	Transverse phase locking for vortex motion in square and triangular pinning arrays. <i>Physical Review B</i> , 2002 , 65,	3.3	6
66	Plastic flow and the skyrmion Hall effect. <i>Nature Communications</i> , 2020 , 11, 738	17.4	5
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