Olivier Pierre-Louis

List of Publications by Year in Descending Order

72 papers	1,597 citations	22 h-index	38 g-index
75 ext. papers	1,711 ext. citations	4.7 avg, IF	4.8 L-index

#	Paper	IF	Citations
72	Stress-Induced Acceleration and Ordering in Solid-State Dewetting.. *Physical Review Letters*, **2022**, 128, 026101	7.4	0
71	Controlling anisotropy in 2D microscopic models of growth. *Journal of Computational Physics*, **2022**, 452, 110936	4.1	1
70	Hole opening from growing interfacial voids: A possible mechanism of solid state dewetting. *Applied Physics Letters*, **2022**, 120, 091603	3.4	0
69	Undulation of a moving fluid membrane pushed by filament growth. *Scientific Reports*, **2021**, 11, 7985	4.9	1
68	Shear dynamics of confined membranes. *Soft Matter*, **2021**, 17, 5467-5485	3.6	1
67	Shapes of Fe nanocrystals encapsulated at the graphite surface. *New Journal of Physics*, **2020**, 22, 023016	2.9	9
66	Disjoining-pressure-induced acceleration of mass shedding in solid-state dewetting. *Physical Review E*, **2020**, 101, 042802	2.4	2
65	Orientation and morphology of solid-state dewetting holes. *Physical Review Materials*, **2020**, 4,	3.2	3
64	The nonequilibrium crystallization force. *Europhysics Letters*, **2019**, 127, 59002	1.6	0
63	Confined growth with slow surface kinetics: A thin film model approach. *Journal of Crystal Growth*, **2019**, 514, 70-82	1.6	1
62	2D nanostructure motion on anisotropic surfaces controlled by electromigration. *Applied Surface Science*, **2019**, 469, 463-470	6.7	13
61	Triple-line kinetics for solid films. *Physical Review E*, **2018**, 97, 022801	2.4	5
60	Thin film modeling of crystal dissolution and growth in confinement. *Physical Review E*, **2018**, 97, 012802	2.4	7
59	Crystal growth in nano-confinement: subcritical cavity formation and viscosity effects. *New Journal of Physics*, **2018**, 20, 073050	2.9	6
58	Adhesion dynamics of confined membranes. *Soft Matter*, **2018**, 14, 8552-8569	3.6	2
57	Hollow Rims from Water Drop Evaporation on Salt Substrates. *Physical Review Letters*, **2018**, 121, 214501	7.4	9
56	Cavity Formation in Confined Growing Crystals. *Physical Review Letters*, **2018**, 121, 096101	7.4	6

55	Nanoroughness Strongly Impacts Lipid Mobility in Supported Membranes. *Langmuir*, **2017**, 33, 2444-2453	4	15
54	Thixotropy and shear thinning of lubricated contacts with confined membranes. *European Physical Journal E*, **2017**, 40, 44	1.5	1
53	Dewetting of patterned solid films: Towards a predictive modelling approach. *Applied Physics Letters*, **2017**, 110, 263105	3.4	10
52	Solid-state wetting at the nanoscale. *Progress in Crystal Growth and Characterization of Materials*, **2016**, 62, 177-202	3.5	18
51	Thermal fluctuations of a liquid film on a heterogeneous solid substrate. *Physical Review E*, **2016**, 94, 032802	2.4	1
50	Shape transition in nano-pits after solid-phase etching of SiO2 by Si islands. *Applied Physics Letters*, **2015**, 106, 191601	3.4	8
49	Transition to coarsening for confined one-dimensional interfaces with bending rigidity. *Physical Review E*, **2015**, 92, 022918	2.4	3
48	Controlling the wetting transitions of nanoparticles on nanopatterned substrates using an electric current. *Physical Review E*, **2015**, 92, 012406	2.4	
47	Kink dynamics with oscillating forces. *Journal of Statistical Mechanics: Theory and Experiment*, **2015**, 2015, P08004	1.9	2
46	Behavior of size selected iron–platinum clusters soft landed on carbon nanotubes. *Applied Surface Science*, **2014**, 301, 564-567	6.7	6
45	Frozen states and order-disorder transition in the dynamics of confined membranes. *Physical Review E*, **2014**, 90, 032114	2.4	9
44	Surface fluctuations of liquids confined on flat and patterned solid substrates. *Physical Review E*, **2014**, 89, 052403	2.4	3
43	Wetting of elastic solids on nanopillars. *Physical Review Letters*, **2014**, 112, 146102	7.4	6
42	Solid-state dewetting with a magic thickness: Electronic dewetting. *Physical Review B*, **2014**, 90,	3.3	1
41	Solid-state wetting on nanopatterned substrates. *Comptes Rendus Physique*, **2013**, 14, 619-628	1.4	2
40	Modeling dewetting of ultra-thin solid films. *Comptes Rendus Physique*, **2013**, 14, 553-563	1.4	11
39	Giant slip at liquid-liquid interfaces using hydrophobic ball bearings. *Physical Review Letters*, **2013**, 110, 104504	7.4	13
38	The Princess and the Pea at the Nanoscale: Wrinkling and Delamination of Graphene on Nanoparticles. *Physical Review X*, **2012**, 2,	9.1	31

37	Nonequilibrium cluster diffusion during growth and evaporation in two dimensions. *Physical Review Letters*, **2012**, 108, 245504	7.4	7
36	Dewetting of solid films with substrate-mediated evaporation. *Physical Review E*, **2012**, 85, 011602	2.4	6
35	Nonlinear wavelength selection in surface faceting under electromigration. *Physical Review Letters*, **2012**, 109, 056101	7.4	13
34	Pressure-mediated doping in graphene. *Nano Letters*, **2011**, 11, 3564-8	11.5	70
33	Imbibition of solids in nanopillar arrays. *Physical Review Letters*, **2011**, 106, 195501	7.4	9
32	Anisotropy and coarsening in the instability of solid dewetting fronts. *Physical Review Letters*, **2011**, 106, 105506	7.4	40
31	Collapse of an adsorbate island on substrate pillars. *Physical Review B*, **2010**, 82,	3.3	8
30	Fully reversible transition from Wenzel to Cassie-Baxter states on corrugated superhydrophobic surfaces. *Langmuir*, **2010**, 26, 3335-41	4	90
29	Crystal surfaces in and out of equilibrium: A modern view. *Reviews of Modern Physics*, **2010**, 82, 981-1040	40.5	171
28	Atomic step motion during the dewetting of ultra-thin films. *European Physical Journal B*, **2010**, 77, 57-63	1.2	14
27	Dewetting of ultrathin solid films. *Physical Review Letters*, **2009**, 103, 195501	7.4	47
26	On the geometry of stiff knots. *European Physical Journal B*, **2009**, 71, 281-288	1.2	0
25	Wetting of solid islands on parallel nano-grooves. *Europhysics Letters*, **2009**, 86, 46004	1.6	16
24	Dewetting of a solid monolayer. *Physical Review Letters*, **2007**, 99, 136101	7.4	31
23	Dynamic correlations of macroscopic quantities. *Physical Review E*, **2007**, 76, 062601	2.4	3
22	Local electromigration model for crystal surfaces. *Physical Review Letters*, **2006**, 96, 135901	7.4	18
21	Birth and morphological evolution of step bunches under electromigration. *Physical Review Letters*, **2006**, 96, 195901	7.4	20
20	Weakly vs. highly nonlinear dynamics in 1D systems. *Europhysics Letters*, **2005**, 72, 894-900	1.6	5

19	Nonlinear dynamics of vicinal surfaces. *Journal of Crystal Growth*, **2005**, 275, 56-64	1.6	15
18	Dynamics of crystal steps. *Comptes Rendus Physique*, **2005**, 6, 11-21	1.4	19
17	Irreversible aggregation of interacting particles in one dimension. *Physical Review E*, **2005**, 71, 041603	2.4	4
16	Peculiar effects of anisotropic diffusion on dynamics of vicinal surfaces. *Physical Review Letters*, **2004**, 93, 185504	7.4	20
15	Kinetic step pairing. *Physical Review Letters*, **2004**, 93, 165901	7.4	26
14	Step bunching with general step kinetics: stability analysis and macroscopic models. *Surface Science* , **2003**, 529, 114-134	1.8	41
13	Continuum model for low temperature relaxation of crystal steps. *Physical Review Letters*, **2001**, 87, 106104	7.4	34
12	Unstable step meandering with elastic interactions. *Physical Review Letters*, **2001**, 86, 5538-41	7.4	44
11	Terrace-width distributions and step□step repulsions on vicinal surfaces: symmetries, scaling, simplifications, subtleties, and Schr□dinger. *Surface Science*, **2001**, 493, 460-474	1.8	27
10	Electromigration of single-layer clusters. *Physical Review B*, **2000**, 62, 13697-13706	3.3	44
9	Edge Diffusion during Growth: The Kink Ehrlich-Schwoebel Effect and Resulting Instabilities. *Physical Review Letters*, **1999**, 82, 3661-3664	7.4	158
8	Implications of random-matrix theory for terrace-width distributions on vicinal surfaces: improved approximations and exact results. *Surface Science*, **1999**, 424, L299-L308	1.8	40
7	Dynamics and fluctuations during MBE on vicinal surfaces. I. Formalism and results of linear theory. *Physical Review B*, **1998**, 58, 2259-2275	3.3	40
6	Dynamics and fluctuations during MBE on vicinal surfaces. II. Nonlinear analysis. *Physical Review B*, **1998**, 58, 2276-2288	3.3	23
5	New Nonlinear Evolution Equation for Steps during Molecular Beam Epitaxy on Vicinal Surfaces. *Physical Review Letters*, **1998**, 80, 4221-4224	7.4	91
4	Equilibrium step dynamics on vicinal surfaces revisited. *Physical Review B*, **1998**, 58, 2289-2309	3.3	78
3	Pulses and disorder in a continuum version of step-bunching dynamics. *Physical Review E*, **1996**, 53, R4318-R4321	2.4	46
2	Out-of-equilibrium step meandering on a vicinal surface. *Physical Review Letters*, **1996**, 76, 4761-4764	7.4	34

1 Advacancy-induced step bunching on vicinal surfaces. *Physical Review B*, **1995**, 51, 17283-17286 3.3 39