

Pedro Jose Tarazona Lafarga

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152
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157
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7,686
ext. citations

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L-index

#	Paper	IF	Citations
152	Free-energy density functional for hard spheres. <i>Physical Review A</i> , 1985 , 31, 2672-2679	2.6	922
151	Phase equilibria of fluid interfaces and confined fluids. <i>Molecular Physics</i> , 1987 , 60, 573-595	1.7	547
150	Dynamic density functional theory of fluids. <i>Journal of Chemical Physics</i> , 1999 , 110, 8032-8044	3.9	491
149	A density functional theory of melting. <i>Molecular Physics</i> , 1984 , 52, 81-96	1.7	347
148	Capillary condensation and adsorption in cylindrical and slit-like pores. <i>Journal of the Chemical Society, Faraday Transactions 2</i> , 1986 , 82, 1763		332
147	RNA folding and combinatorial landscapes. <i>Physical Review E</i> , 1993 , 47, 2083-2099	2.4	175
146	Wetting transitions at models of a solid-gas interface. <i>Molecular Physics</i> , 1983 , 48, 799-831	1.7	165
145	Intrinsic profiles beyond the capillary wave theory: a Monte Carlo study. <i>Physical Review Letters</i> , 2003 , 91, 166103	7.4	158
144	Dynamic density functional theory of fluids. <i>Journal of Physics Condensed Matter</i> , 2000 , 12, A413-A418	1.8	157
143	Error thresholds for molecular quasispecies as phase transitions: From simple landscapes to spin-glass models. <i>Physical Review A</i> , 1992 , 45, 6038-6050	2.6	142
142	Theory of Condensation in Narrow Capillaries. <i>Physical Review Letters</i> , 1984 , 52, 557-560	7.4	134
141	Density functional theory and the asymptotic high density expansion of the free energy of classical solids and fluids. <i>Molecular Physics</i> , 1998 , 95, 141-150	1.7	123
140	Atomically resolved three-dimensional structures of electrolyte aqueous solutions near a solid surface. <i>Nature Communications</i> , 2016 , 7, 12164	17.4	94
139	Dimensional crossover and the freezing transition in density functional theory. <i>Journal of Physics Condensed Matter</i> , 1996 , 8, L577-L581	1.8	94
138	Nonlocal kinetic energy functional for nonhomogeneous electron systems. <i>Physical Review B</i> , 1985 , 32, 7868-7877	3.3	93
137	Nematic-smectic-A-smectic-C transitions in systems of parallel hard molecules. <i>Physical Review Letters</i> , 1988 , 61, 2566-2569	7.4	92
136	A model for density oscillations in liquids between solid walls. <i>Molecular Physics</i> , 1985 , 56, 557-572	1.7	91

135	Layering at free liquid surfaces. <i>Physical Review Letters</i> , 2001 , 87, 166101	7.4	84
134	Monte Carlo intrinsic surfaces and density profiles for liquid surfaces. <i>Physical Review B</i> , 2004 , 70,	3.3	79
133	Density Functional Theories of Hard Particle Systems. <i>Lecture Notes in Physics</i> , 2008 , 247-341	0.8	71
132	Nematic and smectic liquid crystals of hard spherocylinders. <i>Physical Review A</i> , 1990 , 41, 965-970	2.6	69
131	On the failure of certain integral equation theories to account for complete wetting at solid-fluid interfaces. <i>Molecular Physics</i> , 1983 , 50, 993-1011	1.7	69
130	The intrinsic structure of the water surface. <i>Journal of Chemical Physics</i> , 2006 , 125, 014709	3.9	67
129	Capillary condensation in structured pores. <i>Journal of Chemical Physics</i> , 1996 , 105, 2034-2043	3.9	67
128	Two-stage capillary condensation in pores with structured walls: A nonlocal density functional study. <i>Journal of Chemical Physics</i> , 1998 , 108, 8689-8697	3.9	66
127	Long ranged correlations at a solid-fluid interface A signature of the approach to complete wetting. <i>Molecular Physics</i> , 1982 , 47, 1033-1063	1.7	65
126	Wetting transitions at fluid-fluid interfaces. <i>Molecular Physics</i> , 1983 , 49, 283-300	1.7	63
125	Intrinsic structure of hydrophobic surfaces: the oil-water interface. <i>Physical Review Letters</i> , 2008 , 101, 056102	7.4	60
124	Molecular dynamics investigation of the intrinsic structure of water-fluid interfaces via the intrinsic sampling method. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 4704-15	3.6	55
123	Wetting and thick-thin film transitions in a model of argon at a solid CO ₂ substrate. <i>Physical Review A</i> , 1983 , 28, 1864-1868	2.6	55
122	Fundamental measure theory and dimensional interpolation for the hard spheres fluid. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002 , 306, 243-250	3.3	54
121	Langevin computer simulations of bacterial protein filaments and the force-generating mechanism during cell division. <i>Physical Review E</i> , 2008 , 77, 011902	2.4	53
120	Dynamic density functional study of a driven colloidal particle in polymer solutions. <i>Physical Review E</i> , 2003 , 68, 061407	2.4	52
119	Self-consistent weighted-density approximation for the electron gas. I. Bulk properties. <i>Physical Review B</i> , 1988 , 37, 4013-4019	3.3	49
118	Close to the edge of fundamental measure theory: a density functional for hard-sphere mixtures. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 11965-11980	1.8	48

117	Low melting temperature and liquid surface layering for pair potential models. <i>Journal of Chemical Physics</i> , 2002 , 117, 10777-10788	3.9	47
116	Characterization of the intrinsic density profiles for liquid surfaces. <i>Journal of Physics Condensed Matter</i> , 2005 , 17, S3493-S3498	1.8	46
115	Solid-fluid transition and interfaces with density functional approaches. <i>Surface Science</i> , 1995 , 331-333, 989-994	1.8	45
114	Density functional theory of the elastic constants of a nematic liquid crystal. <i>Molecular Physics</i> , 1991 , 72, 911-926	1.7	45
113	A MOF@COF Composite with Enhanced Uptake through Interfacial Pore Generation. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 9512-9516	16.4	42
112	Depolymerization dynamics of individual filaments of bacterial cytoskeletal protein FtsZ. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 8133-8	11.5	42
111	Perturbation weighted-density approximation: The phase diagram of a Lennard-Jones system. <i>Physical Review E</i> , 1993 , 47, 4284-4288	2.4	41
110	Wetting transitions for the Ar-CO ₂ interface: Modified-hypernetted-chain and density-functional-theory results. <i>Physical Review A</i> , 1987 , 35, 1210-1218	2.6	41
109	The effect of confinement on the isotropic-nematic transition. <i>Molecular Physics</i> , 1990 , 71, 801-821	1.7	39
108	Critical analysis of the density functional theory prediction of enhanced capillary waves. <i>Physical Review Letters</i> , 2007 , 99, 196101	7.4	38
107	Hydrodynamics of nanoscopic capillary waves. <i>Physical Review Letters</i> , 2008 , 101, 106102	7.4	36
106	Nonequilibrium inertial dynamics of colloidal systems. <i>Journal of Chemical Physics</i> , 2006 , 124, 164901	3.9	36
105	A model for membranes, vesicles and micelles in amphiphilic systems. <i>Journal of Physics Condensed Matter</i> , 1995 , 7, 5753-5776	1.8	36
104	The intrinsic interfacial structure of ionic surfactant monolayers at water _{oil} and water _{vapour} interfaces. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011 , 467, 1939-1958	2.4	35
103	The structure of ionic aqueous solutions at interfaces: an intrinsic structure analysis. <i>Journal of Chemical Physics</i> , 2012 , 137, 114706	3.9	35
102	Dynamic density functional theory for steady currents: Application to colloidal particles in narrow channels. <i>Journal of Chemical Physics</i> , 2003 , 119, 1766-1776	3.9	32
101	High fluidity and soft elasticity of the inner membrane of Escherichia coli revealed by the surface rheology of model Langmuir monolayers. <i>Langmuir</i> , 2008 , 24, 4065-76	4	31
100	FtsZ bacterial cytoskeletal polymers on curved surfaces: the importance of lateral interactions. <i>Biophysical Journal</i> , 2008 , 94, L81-3	2.9	31

99	Elastic properties of a hard-sphere crystal. <i>Physical Review A</i> , 1987 , 36, 979-981	2.6	30
98	Wetting transitions at fluid-fluid interfaces. <i>Molecular Physics</i> , 1983 , 49, 301-314	1.7	30
97	Thermal fluctuations and bending rigidity of bilayer membranes. <i>Journal of Chemical Physics</i> , 2013 , 139, 094902	3.9	29
96	Comparative study of the surface layer density of liquid surfaces. <i>Physical Review B</i> , 2009 , 80,	3.3	29
95	First-order and continuous transitions in confined liquid crystals. <i>Physical Review A</i> , 1990 , 41, 1149-1152	2.6	29
94	Diffusion at the liquid-vapor interface. <i>Journal of Chemical Physics</i> , 2008 , 128, 134704	3.9	28
93	Layering structures at free liquid surfaces: The Fisher-Widom line and the capillary waves. <i>Journal of Chemical Physics</i> , 2002 , 117, 3941-3950	3.9	28
92	Orientalional phase transitions in systems of adsorbed molecules. <i>Physical Review B</i> , 1989 , 39, 7111-7119	3.3	28
91	Comment on "Prewetting at a solid-fluid interface via Monte Carlo simulation". <i>Physical Review A</i> , 1990 , 42, 2454-2457	2.6	28
90	A MOF@COF Composite with Enhanced Uptake through Interfacial Pore Generation. <i>Angewandte Chemie</i> , 2019 , 131, 9612-9616	3.6	27
89	Surface tension of hard sphere fluid near a wall. <i>Molecular Physics</i> , 1979 , 37, 1077-1087	1.7	27
88	Theory of thermostatted inhomogeneous granular fluids: a self-consistent density functional description. <i>Journal of Chemical Physics</i> , 2007 , 126, 164904	3.9	26
87	Simple modeling of FtsZ polymers on flat and curved surfaces: correlation with experimental in vitro observations. <i>PMC Biophysics</i> , 2009 , 2, 8		25
86	Frank elastic constants of a nematic liquid crystal of hard molecules. <i>Physical Review A</i> , 1989 , 40, 6069-6076		25
85	Adhesive transitions in Newton black films: a computer simulation study. <i>Journal of Chemical Physics</i> , 2011 , 134, 214701	3.9	23
84	Force-field dependence on the interfacial structure of oil-water interfaces. <i>Molecular Physics</i> , 2010 , 108, 1887-1898	1.7	23
83	Perturbation theory applied to the freezing of classical systems. <i>Physical Review E</i> , 1994 , 49, 2161-2166	2.4	23
82	Self-consistent weighted-density approximation for the electron gas. II. The metal surface. <i>Physical Review B</i> , 1988 , 37, 4020-4025	3.3	23

81	Torsion and curvature of FtsZ filaments. <i>Soft Matter</i> , 2014 , 10, 1977-86	3.6	22
80	A computer simulation approach to quantify the true area and true area compressibility modulus of biological membranes. <i>Journal of Chemical Physics</i> , 2015 , 143, 034706	3.9	22
79	Exact solution of approximate density functionals for the kinetic energy of the electron gas. <i>Physical Review B</i> , 1989 , 39, 10366-10369	3.3	22
78	Intrinsic profiles and the structure of liquid surfaces. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 284123	1.23	21
77	Intrinsic fluid interfaces and nonlocality. <i>Physical Review Letters</i> , 2013 , 111, 096104	7.4	20
76	Contact angle and line tension dependence on curvature. <i>Chemical Physics Letters</i> , 1981 , 82, 586-588	2.5	20
75	Theoretical models for the liquid-vapor and metal-nonmetal transitions of alkali fluids. <i>Physical Review B</i> , 1995 , 52, 9330-9341	3.3	19
74	A perturbation-variational theory for molecular fluid interphases. <i>Molecular Physics</i> , 1982 , 47, 145-160	1.7	19
73	Intrinsic structure of the free liquid surface of an alkali metal. <i>Physical Review B</i> , 2006 , 74,	3.3	18
72	Simple model for the phase coexistence and electrical conductivity of alkali fluids. <i>Physical Review Letters</i> , 1995 , 74, 142-145	7.4	18
71	Pairwise correlations at a fluid-fluid interface. <i>Molecular Physics</i> , 1985 , 54, 1357-1392	1.7	18
70	Functional thermo-dynamics: a generalization of dynamic density functional theory to non-isothermal situations. <i>Journal of Chemical Physics</i> , 2013 , 139, 034106	3.9	17
69	Beyond dynamic density functional theory: the role of inertia. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 494233	1.8	17
68	Beyond the dynamic density functional theory for steady currents: application to driven colloidal particles in a channel. <i>Journal of Chemical Physics</i> , 2008 , 128, 164704	3.9	17
67	Capillary waves dynamics at the nanoscale. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 494229	1.8	17
66	Image potential and the exchange-correlation weighted density approximation functional. <i>Physical Review B</i> , 2000 , 62, 16063-16068	3.3	17
65	Elastic constants from a microscopic model of bilayer membrane. <i>Journal of Chemical Physics</i> , 1998 , 109, 2371-2379	3.9	17
64	Nonlocal density functional for the exchange and correlation energy of electrons. <i>Physical Review B</i> , 1986 , 33, 6579-6587	3.3	17

63	Density-functional approach to phase transitions of submonolayer films. I. The role of the intrinsic and extrinsic ordering forces. <i>Physical Review B</i> , 1987 , 35, 3376-3383	3.3	17
62	Exact results and mean field approximation for a model of molecular aggregation. <i>Journal of Chemical Physics</i> , 1997 , 107, 10207-10213	3.9	16
61	The Fisher-Widom line for systems with low melting temperature. <i>Molecular Physics</i> , 2003 , 101, 1595-1603	3.7	16
60	Fluctuation effects in the herringbone orientational phase transition. <i>Physical Review B</i> , 1989 , 39, 7157-7160	3.5	16
59	Complete wetting at a model fluid-argon-solid-CO2 interface. <i>Physical Review A</i> , 1986 , 34, 2513-2516	2.6	16
58	A model for capillary crystallization and the capillary triple point. <i>Molecular Physics</i> , 1987 , 62, 497-507	1.7	16
57	Density functional study of layering at liquid surfaces. <i>Physical Review E</i> , 2004 , 70, 061601	2.4	15
56	Columnar liquid crystal of parallel hard spherocylinders. <i>Physical Review A</i> , 1989 , 40, 4161-4163	2.6	15
55	Deconstructing Temperature Gradients across Fluid Interfaces: The Structural Origin of the Thermal Resistance of Liquid-Vapor Interfaces. <i>Physical Review Letters</i> , 2017 , 119, 045901	7.4	14
54	Dynamical correlations in Brownian hard rods. <i>Journal of Chemical Physics</i> , 2006 , 124, 164903	3.9	14
53	Microscopic Model for Mixed Surfactant Vesicles. <i>Langmuir</i> , 1998 , 14, 6827-6834	4	14
52	Capillary wave Hamiltonian for the Landau-Ginzburg-Wilson density functional. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 244014	1.8	14
51	Constricting force of filamentary protein rings evaluated from experimental results. <i>Physical Review E</i> , 2010 , 81, 031922	2.4	13
50	Bacterial cell division: modeling FtsZ assembly and force generation from single filament experimental data. <i>FEMS Microbiology Reviews</i> , 2019 , 43, 73-87	15.1	13
49	Effect of dispersion forces on the capillary-wave fluctuations of liquid surfaces. <i>Physical Review E</i> , 2014 , 89, 042406	2.4	11
48	Newton black films as wetting systems. <i>Physical Review B</i> , 2012 , 85,	3.3	11
47	Molecular fluids in an external field. <i>Molecular Physics</i> , 1984 , 51, 1475-1486	1.7	11
46	Density functional analysis of atomic force microscopy in a dense fluid. <i>Journal of Chemical Physics</i> , 2019 , 151, 034701	3.9	10

45	Capillary wave spectrum at adsorbed liquid films. <i>Physical Review B</i> , 2012 , 86,	3.3	10
44	Liquid crystals of asymmetric hard body molecules. <i>Molecular Physics</i> , 1992 , 75, 17-21	1.7	10
43	Pinwheel and herringbone phases in systems of adsorbed molecules. <i>Physical Review B</i> , 1990 , 42, 8571-8576	3.3	10
42	Capillary waves and the decay of density correlations at liquid surfaces. <i>Physical Review E</i> , 2016 , 94, 062802	2.4	9
41	Thickness and fluctuations of free and adsorbed liquid films. <i>Physical Review B</i> , 2011 , 84,	3.3	8
40	In vitro reconstitution of the initial stages of the bacterial cell division machinery. <i>Journal of Biological Physics</i> , 2008 , 34, 237-47	1.6	8
39	Capillary waves as eigenmodes of the density correlation at liquid surfaces. <i>Journal of Chemical Physics</i> , 2018 , 148, 084702	3.9	7
38	Lifetimes of small catalytic networks. <i>Bulletin of Mathematical Biology</i> , 1994 , 56, 875-898	2.1	7
37	The image potential in the weighted-density approximation. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1987 , 9, 589-594		7
36	A perturbation-variational theory for molecular fluid interphases in the presence of an electric field. <i>Molecular Physics</i> , 1982 , 47, 1021-1031	1.7	7
35	Modeling the interplay between protein and lipid aggregation in supported membranes. <i>Chemistry and Physics of Lipids</i> , 2015 , 185, 141-52	3.7	6
34	Unified treatment of the metal-non-metal and liquid-vapour transitions in monovalent-atom fluids. <i>Journal of Physics Condensed Matter</i> , 1993 , 5, 1753-1758	1.8	6
33	Structural and Electronic Aspects of the Phase Transitions of Alkali-atom Fluids. <i>Contributions To Plasma Physics</i> , 1993 , 33, 370-373	1.4	6
32	Critical Exponents for Complete Wetting. <i>Physical Review Letters</i> , 1984 , 53, 400-400	7.4	6
31	Thermodynamics of deformable three-phase systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1982 , 115, 490-500	3.3	6
30	Tip Charge Dependence of Three-Dimensional AFM Mapping of Concentrated Ionic Solutions. <i>Physical Review Letters</i> , 2021 , 127, 196101	7.4	6
29	Subnanometer Interfacial Forces in Three-Dimensional Atomic Force Microscopy: Water and Octane near a Mica Surface. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 26296-26303	3.8	6
28	FtsZ protein on bilayer membranes: effects of specific lateral bonds. <i>Soft Matter</i> , 2013 , 9, 6072	3.6	5

27	. <i>Journal of Physics Condensed Matter</i> , 1996 , 8, 9359-9362	1.8	5
26	Nonlocal WDA functional capable of describing the image potential of a metallic surface. <i>International Journal of Quantum Chemistry</i> , 2003 , 91, 139-144	2.1	5
25	Density-functional approach to phase transitions of submonolayer films. II. The role of the relaxation mechanisms. <i>Physical Review B</i> , 1987 , 35, 3384-3393	3.3	5
24	Collective effects of torsion in FtsZ filaments. <i>Physical Review E</i> , 2016 , 93, 042407	2.4	4
23	Mesoscopic Hamiltonian for the fluctuations of adsorbed Lennard-Jones liquid films. <i>Physical Review E</i> , 2015 , 91, 062404	2.4	4
22	Thermodynamic and electronic properties of a tight-binding lattice-gas model. <i>Journal of Physics Condensed Matter</i> , 1997 , 9, 9799-9810	1.8	4
21	Validation of a glue-model approach in a tight-binding hard-sphere model for hot fluid metals. <i>Physical Review B</i> , 2005 , 71,	3.3	4
20	Lattice-gas model driven by Hubbard electrons. <i>Physical Review E</i> , 1999 , 60, 2626-35	2.4	4
19	Density functional approximation for the kinetic energy of independent electrons in one dimension. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992 , 180, 225-240	3.3	4
18	Cluster variational method for a fluid in a narrow capillary. <i>Physical Review A</i> , 1990 , 42, 7340-7346	2.6	4
17	Aggregation models at high packing fraction. <i>Physical Review E</i> , 2000 , 62, 7147-54	2.4	3
16	Phase transitions at solid-fluid interfaces: theoretical description of the transverse structure. <i>Surface Science</i> , 1991 , 251-252, 628-634	1.8	3
15	On the validity of certain integro-differential equations for the density/orientation profile of molecular fluid interfaces. <i>Chemical Physics Letters</i> , 1983 , 97, 279-282	2.5	3
14	Self-organization of curved living polymers: FtsZ protein filaments. <i>Soft Matter</i> , 2009 ,	3.6	2
13	Electrical conductivity of a tight-binding hard-sphere model for hot fluid metals. <i>Physical Review B</i> , 2005 , 71,	3.3	2
12	Capillarity and Wetting. <i>Physica Scripta</i> , 1987 , T19B, 369-374	2.6	2
11	Pairwise correlations and wetting transitions at a solid-gas interface. <i>Surface Science</i> , 1983 , 125, 298-303	1.8	2
10	Surface stress of curved solid-fluid interfaces. <i>Surface Science</i> , 1981 , 111, L733-L738	1.8	2

- 9 A Novel Technique To Predict the Solubility of Planar Molecules. *Energy & Fuels*, **2016**, 30, 10747-10757 1
- 8 Thermodynamic properties and electrical conductivity of a tight-binding hard-sphere model for liquid metals. *Journal of Non-Crystalline Solids*, **2007**, 353, 3523-3527 3.9 1
- 7 Gibbs-ensemble Monte Carlo simulation for the liquid-vapor coexistence of alkali fluids. *Journal of Non-Crystalline Solids*, **1996**, 205-207, 897-900 3.9 1
- 6 Non-local effects in the density functional treatment of the Wigner crystal. *Journal of Physics C: Solid State Physics*, **1986**, 19, 2431-2440 1
- 5 Effects of the electrostatic forces in the structure of molecular interphases. *Molecular Physics*, **1985**, 54, 1073-1083 1.7 1
- 4 Density correlation in liquid surfaces: Bedeaux-Weeks high order terms and non capillary wave background. *Journal of Chemical Physics*, **2018**, 149, 124704 3.9 0
- 3 Thermodynamic and electronic properties of a hard-sphere fluid interacting self consistently with its tight-binding electrons. *Journal of Non-Crystalline Solids*, **2002**, 312-314, 242-246 3.9
- 2 Gutzwiller approximation for a Hubbard lattice gas. *Journal of Non-Crystalline Solids*, **1999**, 250-252, 20-23 3.9
- 1 Calculated structure, phase coexistence, and electrical conductivity of the alkali fluids. *Journal of Non-Crystalline Solids*, **1996**, 205-207, 251-255 3.9