# Pascal Silberzan

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6489214/publications.pdf

Version: 2024-02-01

| 73 | 10,297 | 44069 | 74163 |
|---|---|---|---|
| papers | citations | 48 h-index | 75 g-index |

| 89 | 89 | 89 | 9656 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | In vitro bone metastasis dwelling in a 3D bioengineered niche. Biomaterials, 2021, 269, 120624. | 11.4 | 17 |
| 2 | The 2020 motile active matter roadmap. Journal of Physics Condensed Matter, 2020, 32, 193001. | 1.8 | 242 |
| 3 | Cancer-associated fibroblast heterogeneity in axillary lymph nodes drives metastases in breast cancer through complementary mechanisms. Nature Communications, 2020, 11, 404. | 12.8 | 230 |
| 4 | Local light-activation of the Src oncoprotein in an epithelial monolayer promotes collective extrusion. Communications Physics, 2019, 2, . | 5.3 | 13 |
| 5 | Collective stresses drive competition between monolayers of normal and Ras-transformed cells. Soft Matter, 2019, 15, 537-545. | 2.7 | 23 |
| 6 | Spontaneous shear flow in confined cellular nematics. Nature Physics, 2018, 14, 728-732. | 16.7 | 148 |
| 7 | Controlling Confinement and Topology to Study Collective Cell Behaviors. Methods in Molecular Biology, 2018, 1749, 387-399. | 0.9 | 7 |
| 8 | Turbulent Dynamics of Epithelial Cell Cultures. Physical Review Letters, 2018, 120, 208101. | 7.8 | 107 |
| 9 | Collective cell migration: a physics perspective. Reports on Progress in Physics, 2017, 80, 076601. | 20.1 | 158 |
| 10 | Topological defects in confined populations of spindle-shaped cells. Nature Physics, 2017, 13, 58-62. | 16.7 | 181 |
| 11 | Mechanical cell competition kills cells via induction of lethal p53 levels. Nature Communications, 2016, 7, 11373. | 12.8 | 162 |
| 12 | RalB regulates contractility-driven cancer dissemination upon TGFÎ² stimulation via the RhoGEF GEF-H1. Scientific Reports, 2015, 5, 11759. | 3.3 | 31 |
| 13 | Physics of active jamming during collective cellular motion in a monolayer. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15314-15319. | 7.1 | 334 |
| 14 | Tissue fusion over nonadhering surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9546-9551. | 7.1 | 34 |
| 15 | Architecture and migration of an epithelium on a cylindrical wire. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5944-5949. | 7.1 | 103 |
| 16 | Emergence of collective modes and tri-dimensional structures from epithelial confinement. Nature Communications, 2014, 5, 3747. | 12.8 | 133 |
| 17 | Border Forces and Friction Control Epithelial Closure Dynamics. Biophysical Journal, 2014, 106, 65-73. | 0.5 | 105 |
| 18 | Perfect nematic order in confined monolayers of spindle-shaped cells. Soft Matter, 2014, 10, 2346-2353. | 2.7 | 157 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Proteins, cells, and tissues in patterned environments. Soft Matter, 2014, 10, 2337. | 2.7 | 5 |
| 20 | Interplay of RhoA and mechanical forces in collective cell migration driven by leader cells. Nature Cell Biology, 2014, 16, 217-223. | 10.3 | 305 |
| 21 | The Effects of Out of Plane Curvature on Collective Cell Migration. Biophysical Journal, 2014, 106, 357a. | 0.5 | 1 |
| 22 | Collective Cell Motion in an Epithelial Sheet Can Be Quantitatively Described by a Stochastic Interacting Particle Model. PLoS Computational Biology, 2013, 9, e1002944. | 3.2 | 182 |
| 23 | Automated velocity mapping of migrating cell populations (AVeMap). Nature Methods, 2012, 9, 1081-1083. | 19.0 | 57 |
| 24 | Modeling E. coli Tumbles by Rotational Diffusion. Implications for Chemotaxis. PLoS ONE, 2012, 7, e35412. | 2.5 | 109 |
| 25 | Orientation and Polarity in Collectively Migrating Cell Structures: Statics and Dynamics. Biophysical Journal, 2011, 100, 2566-2575. | 0.5 | 111 |
| 26 | Directional persistence of chemotactic bacteria in a traveling concentration wave. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16235-16240. | 7.1 | 167 |
| 27 | Traction forces exerted by epithelial cell sheets. Journal of Physics Condensed Matter, 2010, 22, 194119. | 1.8 | 110 |
| 28 | Mathematical Description of Bacterial Traveling Pulses. PLoS Computational Biology, 2010, 6, e1000890. | 3.2 | 71 |
| 29 | Physical Model of the Dynamic Instability in an Expanding Cell Culture. Biophysical Journal, 2010, 98, 361-370. | 0.5 | 84 |
| 30 | Strength Dependence of Cadherin-Mediated Adhesions. Biophysical Journal, 2010, 98, 534-542. | 0.5 | 223 |
| 31 | Velocity Fields in a Collectively Migrating Epithelium. Biophysical Journal, 2010, 98, 1790-1800. | 0.5 | 281 |
| 32 | ActivitÃ© et rÃ©ponse Ã une blessure dâ€™un tapis de cellules. , 2010, , 18-21. | 0.1 | 0 |
| 33 | A Nanostructure Made of a Bacterial Noncoding RNA. Journal of the American Chemical Society, 2009, 131, 17270-17276. | 13.7 | 38 |
| 34 | Microfluidics: Concepts and Applications to the Life Sciences. , 2009, , 743-774. | | 2 |
| 35 | Traction forces and rigidity sensing regulate cell functions. Soft Matter, 2008, 4, 1836. | 2.7 | 335 |
| 36 | Rigidity-driven growth and migration of epithelial cells on microstructured anisotropic substrates. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8281-8286. | 7.1 | 341 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Collective migration of an epithelial monolayer in response to a model wound. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15988-15993. | 7.1 | 759 |
| 38 | Adhesion on Microstructured Surfaces. Journal of Adhesion, 2007, 83, 449-472. | 3.0 | 23 |
| 39 | Adhesion Enhancement through Micropatterning at Polydimethylsiloxaneâ^'Acrylic Adhesive Interfaces. Langmuir, 2007, 23, 6966-6974. | 3.5 | 79 |
| 40 | Micro-Actuators:Â When Artificial Muscles Made of Nematic Liquid Crystal Elastomers Meet Soft Lithography. Journal of the American Chemical Society, 2006, 128, 1088-1089. | 13.7 | 329 |
| 41 | Nonmuscle Myosin IIA-Dependent Force Inhibits Cell Spreading and Drives F-Actin Flow. Biophysical Journal, 2006, 91, 3907-3920. | 0.5 | 255 |
| 42 | Bouncing or sticky droplets: Impalement transitions on superhydrophobic micropatterned surfaces. Europhysics Letters, 2006, 74, 299-305. | 2.0 | 566 |
| 43 | Homophilic Interactions between Cadherin Fragments at the Single Molecule Level: An AFM Study. Langmuir, 2006, 22, 4680-4684. | 3.5 | 21 |
| 44 | Traction forces exerted through N-cadherin contacts. Biology of the Cell, 2006, 98, 721-730. | 2.0 | 180 |
| 45 | Force mapping in epithelial cell migration. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 2390-2395. | 7.1 | 686 |
| 46 | Is the Mechanical Activity of Epithelial Cells Controlled by Deformations or Forces?. Biophysical Journal, 2005, 89, L52-L54. | 0.5 | 331 |
| 47 | Permeation-induced flows: Consequences for silicone-based microfluidics. Europhysics Letters, 2004, 68, 412-418. | 2.0 | 48 |
| 48 | The dynamics of genomic-length DNA molecules in 100-nm channels. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 10979-10983. | 7.1 | 458 |
| 49 | Microfabricated arrays of elastomeric posts to study cellular mechanics. , 2004, 5345, 26. | | 11 |
| 50 | Functionalizing Surfaces with Nickel Ions for the Grafting of Proteins. Langmuir, 2003, 19, 4138-4143. | 3.5 | 36 |
| 51 | Influence of topology on bacterial social interaction. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13910-13915. | 7.1 | 176 |
| 52 | Motion to Form a Quorum. Science, 2003, 301, 188-188. | 12.6 | 130 |
| 53 | DÃ©placement de gouttes sur un microcatÃ©naire. Houille Blanche, 2003, 89, 37-42. | 0.3 | 6 |
| 54 | Role of Molecular Size in Ratchet Fractionation. Physical Review Letters, 2002, 89, 178301. | 7.8 | 68 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Ratchet-like topological structures for the control of microdrops. Applied Physics A: Materials Science and Processing, 2002, 75, 207-212. | 2.3 | 67 |
| 56 | Rectified Motion of Colloids in Asymmetrically Structured Channels. Physical Review Letters, 2002, 88, 168301. | 7.8 | 110 |
| 57 | Active atomic force microscopy cantilevers for imaging in liquids. Applied Physics Letters, 2001, 78, 2982-2984. | 3.3 | 48 |
| 58 | Moving droplets on asymmetrically structured surfaces. Physical Review E, 1999, 60, 2964-2972. | 2.1 | 83 |
| 59 | Kinetics of self-assembled silane monolayers at various temperatures: evidence of 2D foam. Thin Solid Films, 1998, 327-329, 166-171. | 1.8 | 34 |
| 60 | Wetting of Polymer Brushes by a Nematogenic Compound. Physical Review Letters, 1998, 80, 5141-5144. | 7.8 | 16 |
| 61 | Dielectrophoretic ratchets. Chaos, 1998, 8, 650-656. | 2.5 | 91 |
| 62 | Sorting of Brownian particles by the pulsed application of an asymmetric potential. Physical Review E, 1997, 56, 2025-2034. | 2.1 | 71 |
| 63 | Sessile Droplets at a Solid/Elastomer Interface. Langmuir, 1997, 13, 4910-4914. | 3.5 | 33 |
| 64 | Rencontres Physique-Biologie-Chimie de la montagne Sainte-Genevieve 1997. Journal De Physique II, 1997, 7, 1555-1575. | 0.9 | 0 |
| 65 | Temperature influence on the formation of silanized monolayers on silica: an atomic force microscopy study. Surface Science, 1996, 352-354, 369-373. | 1.9 | 35 |
| 66 | Rectified motion of a mercury drop in an asymmetric structure. Europhysics Letters, 1996, 33, 267-272. | 2.0 | 49 |
| 67 | Study of the Self-Adhesion Hysteresis of a Siloxane Elastomer Using the JKR Method. Langmuir, 1994, 10, 2466-2470. | 3.5 | 133 |
| 68 | How Are the Wetting Properties of Silanated Surfaces Affected by Their Structure? An Atomic-Force Microscopy Study. Europhysics Letters, 1992, 20, 633-638. | 2.0 | 54 |
| 69 | Spreading of high molecular weight polymer melts on high-energy surfaces. Macromolecules, 1992, 25, 1267-1271. | 4.8 | 62 |
| 70 | Silanation of silica surfaces. A new method of constructing pure or mixed monolayers. Langmuir, 1991, 7, 1647-1651. | 3.5 | 486 |
| 71 | Langmuir-Blodgett films: From micron to angstrom. Physical Review Letters, 1991, 67, 2029-2032. | 7.8 | 85 |
| 72 | Evidence for a new spreading regime between partial and total wetting. Physical Review Letters, 1991, 66, 185-188. | 7.8 | 51 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | The spreading of drops on solid surfaces. Journal of Physics Condensed Matter, 1990, 2, SA421-SA425. | 1.8 | 4 |