

Pierre François Lennä©

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7691883/publications.pdf>

Version: 2024-02-01

78
papers

7,593
citations

126907

33
h-index

85541

71
g-index

91
all docs

91
docs citations

91
times ranked

6991
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Cell surface mechanics and the control of cell shape, tissue patterns and morphogenesis. <i>Nature Reviews Molecular Cell Biology</i> , 2007, 8, 633-644. | 37.0 | 1,054 |
| 2 | Planar polarized actomyosin contractile flows control epithelial junction remodelling. <i>Nature</i> , 2010, 468, 1110-1114. | 27.8 | 577 |
| 3 | Nature and anisotropy of cortical forces orienting <i>Drosophila</i> tissue morphogenesis. <i>Nature Cell Biology</i> , 2008, 10, 1401-1410. | 10.3 | 535 |
| 4 | Force Generation, Transmission, and Integration during Cell and Tissue Morphogenesis. <i>Annual Review of Cell and Developmental Biology</i> , 2011, 27, 157-184. | 9.4 | 483 |
| 5 | Dynamic molecular confinement in the plasma membrane by microdomains and the cytoskeleton meshwork. <i>EMBO Journal</i> , 2006, 25, 3245-3256. | 7.8 | 443 |
| 6 | Fluorescence Correlation Spectroscopy Diffusion Laws to Probe the Submicron Cell Membrane Organization. <i>Biophysical Journal</i> , 2005, 89, 4029-4042. | 0.5 | 407 |
| 7 | A two-tiered mechanism for stabilization and immobilization of E-cadherin. <i>Nature</i> , 2008, 453, 751-756. | 27.8 | 365 |
| 8 | Raft nanodomains contribute to Akt/PKB plasma membrane recruitment and activation. <i>Nature Chemical Biology</i> , 2008, 4, 538-547. | 8.0 | 270 |
| 9 | Dynamics in the plasma membrane: how to combine fluidity and order. <i>EMBO Journal</i> , 2006, 25, 3446-3457. | 7.8 | 259 |
| 10 | Local and tissue-scale forces drive oriented junction growth during tissue extension. <i>Nature Cell Biology</i> , 2015, 17, 1247-1258. | 10.3 | 249 |
| 11 | Enhancement of Single-Molecule Fluorescence Detection in Subwavelength Apertures. <i>Physical Review Letters</i> , 2005, 95, 117401. | 7.8 | 211 |
| 12 | Direct laser manipulation reveals the mechanics of cell contacts in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 1416-1421. | 7.1 | 199 |
| 13 | Principles of E-Cadherin Supramolecular Organization In Vivo. <i>Current Biology</i> , 2013, 23, 2197-2207. | 3.9 | 165 |
| 14 | Measuring forces and stresses <i>in situ</i> in living tissues. <i>Development (Cambridge)</i> , 2016, 143, 186-196. | 2.5 | 163 |
| 15 | Diffusion Analysis within Single Nanometric Apertures Reveals the Ultrafine Cell Membrane Organization. <i>Biophysical Journal</i> , 2007, 92, 913-919. | 0.5 | 154 |
| 16 | Genetic induction and mechanochemical propagation of a morphogenetic wave. <i>Nature</i> , 2019, 572, 467-473. | 27.8 | 124 |
| 17 | Viscoelastic Dissipation Stabilizes Cell Shape Changes during Tissue Morphogenesis. <i>Current Biology</i> , 2017, 27, 3132-3142.e4. | 3.9 | 120 |
| 18 | States and transitions during forced unfolding of a single spectrin repeat. <i>FEBS Letters</i> , 2000, 476, 124-128. | 2.8 | 107 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Distinct contributions of tensile and shear stress on E-cadherin levels during morphogenesis. <i>Nature Communications</i> , 2018, 9, 5021. | 12.8 | 100 |
| 20 | Surface plasmon excitation on a single subwavelength hole in a metallic sheet. <i>Applied Optics</i> , 2005, 44, 2332. | 2.1 | 80 |
| 21 | Cortical Forces in Cell Shape Changes and Tissue Morphogenesis. <i>Current Topics in Developmental Biology</i> , 2011, 95, 93-144. | 2.2 | 80 |
| 22 | Boron Difluoride Curcuminoid Fluorophores with Enhanced Two-Photon Excited Fluorescence Emission and Versatile Living-Cell Imaging Properties. <i>Chemistry - A European Journal</i> , 2016, 22, 5219-5232. | 3.3 | 77 |
| 23 | Characterization of the Growth of 2D Protein Crystals on a Lipid Monolayer by Ellipsometry and Rigidity Measurements Coupled to Electron Microscopy. <i>Biophysical Journal</i> , 1998, 74, 2649-2657. | 0.5 | 76 |
| 24 | Pathways and Intermediates in Forced Unfolding of Spectrin Repeats. <i>Structure</i> , 2002, 10, 1085-1096. | 3.3 | 75 |
| 25 | Single molecule fluorescence in rectangular nano-apertures. <i>Optics Express</i> , 2005, 13, 7035. | 3.4 | 68 |
| 26 | Field enhancement in single subwavelength apertures. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2006, 23, 2342. | 1.5 | 49 |
| 27 | Dual-color fluorescence cross-correlation spectroscopy in a single nanoaperture : towards rapid multicomponent screening at high concentrations. <i>Optics Express</i> , 2006, 14, 12206. | 3.4 | 47 |
| 28 | Patterned cortical tension mediated by N-cadherin controls cell geometric order in the <i>Drosophila</i> eye. <i>ELife</i> , 2017, 6, . | 6.0 | 46 |
| 29 | Physics puzzles on membrane domains posed by cell biology. <i>Soft Matter</i> , 2009, 5, 2841. | 2.7 | 45 |
| 30 | Surface-Induced Polymerization of Actin. <i>Biophysical Journal</i> , 1999, 76, 1580-1590. | 0.5 | 43 |
| 31 | Polarization-resolved microscopy reveals a muscle myosin motor-independent mechanism of molecular actin ordering during sarcomere maturation. <i>PLoS Biology</i> , 2018, 16, e2004718. | 5.6 | 42 |
| 32 | FCS Diffusion Laws in Two-Phase Lipid Membranes: Determination of Domain Mean Size by Experiments and Monte Carlo Simulations. <i>Biophysical Journal</i> , 2011, 100, 1242-1251. | 0.5 | 40 |
| 33 | Boron difluoride complexes of hemicurcuminoids as bio-inspired push-pull dyes for bioimaging. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 1311-1324. | 2.8 | 40 |
| 34 | Single-Fluorophore Diffusion in a Lipid Membrane over a Subwavelength Aperture. <i>Journal of Biological Physics</i> , 2006, 32, SN1-SN4. | 1.5 | 37 |
| 35 | Sculpting tissues by phase transitions. <i>Nature Communications</i> , 2022, 13, 664. | 12.8 | 37 |
| 36 | Synchrotron Radiation Diffraction from Two-Dimensional Protein Crystals at the Air/Water Interface. <i>Biophysical Journal</i> , 2000, 79, 496-500. | 0.5 | 35 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Calcium signaling in developing embryos: Focus on the regulation of cell shape changes and collective movements. <i>Seminars in Cell and Developmental Biology</i> , 2012, 23, 298-307. | 5.0 | 33 |
| 38 | Cell Junction Mechanics beyond the Bounds of Adhesion and Tension. <i>Developmental Cell</i> , 2021, 56, 202-212. | 7.0 | 33 |
| 39 | Flow Profiles and Directionality in Microcapillaries Measured by Fluorescence Correlation Spectroscopy. <i>Single Molecules</i> , 2002, 3, 194-200. | 0.9 | 32 |
| 40 | Refractive effects in coherent anti-Stokes Raman scattering microscopy. <i>Applied Optics</i> , 2006, 45, 7005. | 2.1 | 32 |
| 41 | Cell-state transitions and collective cell movement generate an endoderm-like region in gastruloids. <i>ELife</i> , 2022, 11, . | 6.0 | 32 |
| 42 | Membrane microdomains: from seeing to understanding. <i>Frontiers in Plant Science</i> , 2014, 5, 18. | 3.6 | 31 |
| 43 | Roadmap for the multiscale coupling of biochemical and mechanical signals during development. <i>Physical Biology</i> , 2021, 18, 041501. | 1.8 | 29 |
| 44 | Experimental validation of force inference in epithelia from cell to tissue scale. <i>Scientific Reports</i> , 2019, 9, 14647. | 3.3 | 28 |
| 45 | Sculpting with stem cells: how models of embryo development take shape. <i>Development (Cambridge)</i> , 2021, 148, . | 2.5 | 28 |
| 46 | Two-Dimensional Crystallization of a Histidine-Tagged Protein on Monolayers of Fluidity-Enhanced Ni ²⁺ -Chelating Lipids. <i>Langmuir</i> , 2002, 18, 9502-9512. | 3.5 | 27 |
| 47 | Coherent anti-Stokes Raman scattering microscopy (CARS): Instrumentation and applications. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 571, 177-181. | 1.6 | 27 |
| 48 | Subwavelength patterns and high detection efficiency in fluorescence correlation spectroscopy using photonic structures. <i>Applied Physics Letters</i> , 2002, 80, 4106-4108. | 3.3 | 26 |
| 49 | Raman scattering and fluorescence emission in a single nanoaperture: Optimizing the local intensity enhancement. <i>Optics Communications</i> , 2006, 267, 224-228. | 2.1 | 24 |
| 50 | Polysialylation Increases Lateral Diffusion of Neural Cell Adhesion Molecule in the Cell Membrane. <i>Journal of Biological Chemistry</i> , 2007, 282, 26266-26274. | 3.4 | 23 |
| 51 | Radiative and Nonradiative Photokinetics Alteration Inside a Single Metallic Nanometric Aperture. <i>Journal of Physical Chemistry C</i> , 2007, 111, 11469-11474. | 3.1 | 23 |
| 52 | X-ray grazing incidence diffraction on monolayers at the surface of water. <i>Current Opinion in Colloid and Interface Science</i> , 1998, 3, 321-326. | 7.4 | 19 |
| 53 | Fluorescence correlation spectroscopy to determine diffusion laws: application to live cell membranes. , 2004, , . | | 19 |
| 54 | Single-scattering theory of light diffraction by a circular subwavelength aperture in a finitely conducting screen. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2007, 24, 339. | 1.5 | 19 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 55 | Multiple sensor stabilization system for local probe microscopes. Review of Scientific Instruments, 2001, 72, 142-149. | 1.3 | 18 |
| 56 | Molecular clustering in the cell: from weak interactions to optimized functional architectures. Current Opinion in Cell Biology, 2016, 38, 18-23. | 5.4 | 18 |
| 57 | Fluorescence fluctuations analysis in nanoapertures: physical concepts and biological applications. Histochemistry and Cell Biology, 2008, 130, 795-805. | 1.7 | 17 |
| 58 | Calcium Spikes in Epithelium: study on Drosophila early embryos. Scientific Reports, 2015, 5, 11379. | 3.3 | 16 |
| 59 | Laser Ablation to Probe the Epithelial Mechanics in Drosophila. Methods in Molecular Biology, 2016, 1478, 241-251. | 0.9 | 15 |
| 60 | Setting Up a Simple Light Sheet Microscope for <i>In Toto</i> Imaging of <i>C. elegans</i> Development. Journal of Visualized Experiments, 2014, , . | 0.3 | 13 |
| 61 | Bond Flexibility and Low Valence Promote Finite Clusters of Self-Aggregating Particles. Physical Review Letters, 2012, 109, 078101. | 7.8 | 12 |
| 62 | Wnt ligands regulate the asymmetric divisions of neuronal progenitors in <i>C. elegans</i> embryos. Development (Cambridge), 2020, 147, . | 2.5 | 12 |
| 63 | Confined diffusion in tubular structures analyzed by fluorescence correlation spectroscopy on a mirror. Applied Optics, 2006, 45, 4497. | 2.1 | 9 |
| 64 | The elmo- <i>mbc</i> complex and <i>rhogap19d</i> couple Rho family GTPases during mesenchymal-to-epithelial-like transitions. Development (Cambridge), 2018, , . | 2.5 | 9 |
| 65 | Clustering of low-valence particles: Structure and kinetics. Physical Review E, 2014, 90, 022301. | 2.1 | 6 |
| 66 | Tissue "melting"™ sculpts embryo. Nature, 2018, 561, 315-316. | 27.8 | 6 |
| 67 | Growth of Two-Dimensional Solids in Alcohol Monolayers in the Presence of Soluble Amphiphilic Molecules. Langmuir, 2000, 16, 2306-2310. | 3.5 | 5 |
| 68 | Biophotonics applications of nanometric apertures. International Journal of Materials and Product Technology, 2009, 34, 488. | 0.2 | 5 |
| 69 | Vibrational imaging by coherent anti-stokes Raman scattering (CARS) microscopy. , 2004, 5463, 133. | | 4 |
| 70 | Superresolution measurements in vivo: Imaging Drosophila embryo by photoactivated localization microscopy. Methods in Cell Biology, 2015, 125, 119-142. | 1.1 | 4 |
| 71 | Growth morphologies during 2D solidification of Langmuir monolayers limited by both surface and bulk diffusion. Europhysics Letters, 1997, 38, 301-306. | 2.0 | 3 |
| 72 | Probing Cell Mechanics with Bead-Free Optical Tweezers in the <i>Drosophila</i> Embryo. Journal of Visualized Experiments, 2018, , . | 0.3 | 3 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | Probing cell-surface dynamics and mechanics at different scales. <i>Histochemistry and Cell Biology</i> , 2009, 132, 247-252. | 1.7 | 2 |
| 74 | Axial localization of luminophores by partial coherence interferometry. , 2004, , . | | 1 |
| 75 | Reducing and shaping the fluorescence detection volume for single bio-molecules analysis: the assets of nanophotonic structures. , 2004, , . | | 0 |
| 76 | Observation of the interferences between the emitted beams in a 4Pi microscope by partial coherence interferometry. <i>Applied Physics Letters</i> , 2005, 87, 181103. | 3.3 | 0 |
| 77 | Probing the mechanical properties of <i>Drosophila</i> embryo epithelial cells in vivo by laser nanodissection. , 2009, , . | | 0 |
| 78 | Enhanced Raman Scattering in a 10 Attoliter Nanohole. , 2006, , . | | 0 |