

Resource Summary Report

Generated by [NIF](#) on Aug 19, 2026

OrientationJ

RRID:SCR_014796

Type: Tool

Proper Citation

OrientationJ (RRID:SCR_014796)

Resource Information

URL: <http://bigwww.epfl.ch/demo/orientation/>

Proper Citation: OrientationJ (RRID:SCR_014796)

Description: Software used to automatically characterize the orientation and isotropy properties of a region of interest in an image based on the evaluation of the structure tensor in a local neighborhood. OrientationJ has four functionalities: visual representation of the orientation, quantitative orientation measurement, making distribution of orientations, and corner detection.

Synonyms: Orientation J

Resource Type: data processing software, software resource, data analysis software, software application

Keywords: orientation, isotropy, region of interest, visual representation, quantitative orientation measurement, data analysis software

Availability: Acknowledgement requested, Free for research purposes, Can be redistributed with consent

Resource Name: OrientationJ

Resource ID: SCR_014796

Record Creation Time: 20220129T080322+0000

Record Last Update: 20260818T043506+0000

Ratings and Alerts

No rating or validation information has been found for OrientationJ.

No alerts have been found for OrientationJ.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 153 mentions in open access literature.

Listed below are recent publications. The full list is available at [NIF](#) .

Debbi L, et al. (2026) The Effect of Mechanical Loading on Sprouting Angiogenesis from Engineered Macro-vessel Model. *Small methods*, 10(4), e00850.

Liu Y, et al. (2026) Topology-optimized melt-electrowritten PCL patch for abdominal wall reconstruction. *Bioactive materials*, 55, 529.

Kaivola J, et al. (2026) Restoring the tumour mechanophenotype of vocal fold cancer reverts its malignant properties. *Nature materials*, 25(5), 868.

Herrera A, et al. (2026) Cell type-specific response to curvature controls tissue growth dynamics in biomaterial pores. *Bioactive materials*, 61, 482.

Tsutsumi M, et al. (2026) Significance of fiber orientation in the interosseous sacroiliac ligament: An anatomical and histological study of the implications of its mechanical adaptation. *Journal of anatomy*, 249(1), 68.

Gohel P, et al. (2026) A non-transcriptional mitotic function of POU/Oct factors ensures spindle assembly and chromosome segregation. *Journal of cell science*, 139(5).

Jung WH, et al. (2026) Matrix Viscoelasticity Regulates Dendritic Cell Migration and Immune Priming. *Advanced materials (Deerfield Beach, Fla.)*, 38(32), e23274.

Ramahdita G, et al. (2026) 3D-Printing-Assisted, Microfabricated Devices Reveal Hierarchical and Temporal Mechanosensing in High-Density Fibroblast Culture. *ACS nano*, 20(20), 14392.

Sandoval KIO, et al. (2026) EMMIs: Engineered Myometrial Microtissues for Direct Quantification of Oxytocin-Induced Contractility. *bioRxiv : the preprint server for biology*.

Masuda R, et al. (2026) Orientation-based evaluation of scleral collagen fibers in uveitic secondary glaucoma. *Graefe's archive for clinical and experimental ophthalmology = Albrecht von Graefes Archiv fur klinische und experimentelle Ophthalmologie*, 264(5), 1435.

Ibrahim AM, et al. (2026) Geometry-Encoded Microtrenches Stabilize Endothelium on High Shear Biomaterial Surfaces. *bioRxiv : the preprint server for biology*.

Admiraal J, et al. (2026) Building the blood-brain barrier: a scalable self-assembling 3D model of the brain microvasculature under unidirectional flow. *Fluids and barriers of the CNS*, 23(1), 29.

Chen X, et al. (2026) Stiff matrix-induced KRTAP2-3 expression suppresses ciliogenesis via actin tension-driven chromatin remodeling. *Cell death & disease*, 17(1).

Perez-Verdugo F, et al. (2026) Mechanosensitive feedback organizes cell shape and motion during hindbrain neuropore morphogenesis. *Current biology : CB*, 36(8), 1903.

Kodithuwakku Arachchige M, et al. (2025) Directional Swimming of *B. Subtilis* Bacteria Near a Switchable Polar Surface. *Small (Weinheim an der Bergstrasse, Germany)*, 21(5), e2403088.

Eckert J, et al. (2025) Capturing nematic order on tissue surfaces of arbitrary geometry. *Nature communications*, 16(1), 7596.

Schlangen M, et al. (2025) Meat analogues: The relationship between mechanical anisotropy, macrostructure, and microstructure. *Current research in food science*, 10, 100980.

Jia N, et al. (2025) Laminin-conjugated aligned nanofiber yarns for topographical and biochemical guidance of neurite outgrowth and branching regulation. *Journal of nanobiotechnology*, 23(1), 769.

Sung BH, et al. (2025) Exosomes are specialized vehicles to induce fibronectin assembly. *bioRxiv : the preprint server for biology*.

Alimi OA, et al. (2025) Porous Decellularized Nerve Grafts Facilitate Recellularization and Nerve Regeneration in a Rat Model of Critical Long-Gap Peripheral Nerve Injury. *Advanced healthcare materials*, 14(25), e2502320.