

Resource Summary Report

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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 application, data analysis software, software resource

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: 20260731T042916+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 135 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#).

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

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.

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.

Eustache RP, et al. (2025) Medusa's gaze: Cell traces and fibrils but no collagen in permineralized Jurassic ichthyosaur bone. *iScience*, 28(1), 111523.

Andreu-Martínez R, et al. (2025) Uncovering a novel role of nAChRs in oxidative stress-mediated vascular dysfunction in COPD. *Redox biology*, 86, 103838.

Sensi F, et al. (2025) Patient-derived extracellular matrix from decellularized high-grade serous ovarian carcinoma tissues as a biocompatible support for organoid growth. *Translational oncology*, 61, 102523.

Guarino V, et al. (2025) Pericyte-Assisted Vascular Lumen Organization in a Novel Dynamic Human Blood-Brain Barrier-on-Chip Model. *Advanced healthcare materials*, 14(15), e2401804.

Dawson LE, et al. (2025) The deubiquitylating enzyme Fat facets promotes Fat signalling and restricts tissue growth. *Nature communications*, 16(1), 1938.

Aggarwal N, et al. (2025) Characterisation and correction of polarisation effects in fluorescently labelled fibres. *Journal of microscopy*, 298(2), 185.

Kirya P, et al. (2025) Leveraging Optical Anisotropy of the Morpho Butterfly Wing for Quantitative, Stain-Free, and Contact-Free Assessment of Biological Tissue Microstructures. *Advanced materials (Deerfield Beach, Fla.)*, 37(12), e2407728.

Mozzer A, et al. (2025) Analysis of 2-dimensional regional differences in the peripapillary scleral fibroblast cytoskeleton of normotensive and hypertensive mouse eyes. Scientific reports, 15(1), 21207.

Fung AK, et al. (2025) Collagen XII Plays a More Prominent Cell-Mediated Role in Tendon Organization Compared to Matrix Assembly During Postnatal Development. FASEB journal : official publication of the Federation of American Societies for Experimental Biology, 39(21), e71196.

Hargreaves E, et al. (2025) Dysregulated SASS6 expression promotes increased ciliogenesis and cell invasion phenotypes. Life science alliance, 8(10).

Jia L, et al. (2025) Integrated biomimetic bioprinting of perichondrium with cartilage for auricle reconstruction. Bioactive materials, 48, 100.

Arafat Y, et al. (2025) Fibre tracing in biomedical images: An objective comparison between seven algorithms. PloS one, 20(4), e0320006.

Yoon J, et al. (2025) Enhanced Bioprinting of 3D Corneal Stroma Patches with Reliability, Assessing Product Consistency and Quality through Optimized Electron Beam Sterilization. Advanced healthcare materials, 14(9), e2403118.

Capuana E, et al. (2025) Impact of Fiber Orientation in Electrospun PLA Scaffolds on Fluid Dynamics in a Custom Microfluidic Device. Advanced healthcare materials, 14(25), e2500378.

Guarino V, et al. (2025) PDMS Membranes Drilled by Proton Microbeam Writing: A Customizable Platform for the Investigation of Endothelial Cell-Substrate Interactions in Transwell-like Devices. Journal of functional biomaterials, 16(8).