

QuickPALM: 3D real-time photoactivation nanoscopy image processing in ImageJ

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Abstract

To the Editor: Although conventional microscopes have a resolution limited by diffraction to about half the wavelength of light, several recent advances have led to microscopy methods that achieve roughly tenfold improvements in resolution. Among them, photoactivated light microscopy (PALM) and stochastic optical resolution microscopy (STORM) have become particularly popular, as they only require relatively simple and affordable modifications to a standard total internal reflection fluorescence (TIRF) microscope and have been extended to three-dimensional (3D) super-resolution and multicolor imaging.