

Abstract Submitted  
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**Solving the focal shift problem in spatiotemporal focusing nonlinear microscopy** KAI LOU, FRANCOIS AMBLARD, IBS Center for soft and living matter, BO WANG, Departments of Bioengineering, Stanford University, STEVE GRANICK, IBS Center for soft and living matter — Fluorescence imaging deep into mouse lung and snail demonstrates a doughty nonlinear microscopy with wide field of view, high contrast, fast acquisition-rate and near diffraction-limited axial resolution based on an ordinary ultrafast oscillator and spatiotemporal focusing nonlinear microscopy design. The key idea is that focal shift matching promotes near-diffraction-limited axial fluorescence optical sectioning for both low and high NA objectives without laser extra-cavity alteration.

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