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Optical Wide-Field Nanoscope CHARLES REGAN, AYRTON BERNUSSI, Texas Tech University, NanoTech Center and Department of Electrical Engineering, LUIS GRAVE DE PERALTA, Texas Tech University, NanoTech Center and Department of Physics — We describe the wide-field optical nanoimaging capabilities of a novel nanoscope based on the surface plasmon polariton (SPP) tomography technique. In contrast to other optical subwavelength resolution techniques, in our approach for imaging nanosize features, enhanced evanescent waves are coupled to the far-field via leakage radiation associated with SPPs excited by near-field fluorescence; therefore wide-field images which are not out-of-plane diffraction-limited are formed directly in the microscope's camera.

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