Supporting Information
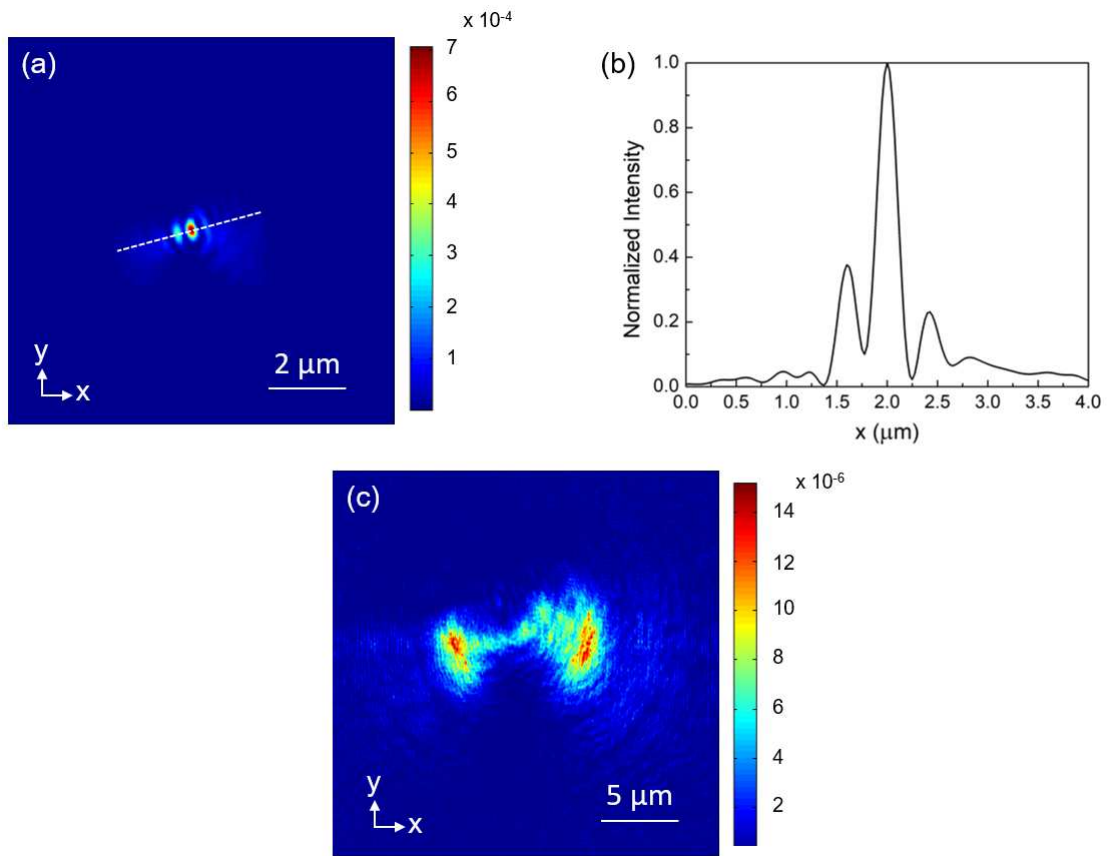

Figure S.1.: (a) 2D cross section in the x-y plane at the level of the metallic film (at z=0) of the reconstructed scattered field intensity obtained by off-axis Digital Holographic Microscopy measurement of the complex EM field with the tip in contact with a metallic film on glass. (b) Section view of the 2D cross section showing the intensity profile along the dashed line in (a). (c) 2D cross section in the x-y plane 5 μm below the metallic film (i.e. in the glass substrate at z=-5 μm) of the reconstructed scattered field intensity measured with the tip in contact with a metallic film on glass.
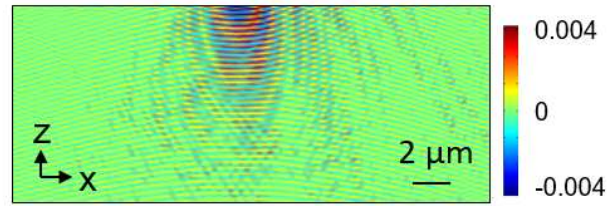
Figure S.2.: x-z section view of the wavefront reconstruction obtained experimentally by off-axis Digital Holographic Microscopy measurement of the complex EM field when the tip is 3 μm above the metallic film, for comparison with the situation where it is in contact with it (see Figure 3.k). The figure shows $\rho|A(x,y,z)|\cos(\phi(x,y,z))$.