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Wide field imaging of nanosize (1D or 2D) objects MARIE-PIERRE VALIGNAT, Princeton University, DOMINIQUE AUSSERRE, CNRS/Nanoraptor — We present a new technique that increases the sensitivity of present optical microscopy by two order of magnitude without reducing it lateral resolution. The technique is based on the association of specific surfaces as sample supports and microscope observation between cross polarizers. It is particularly efficient when the microscope is turned into DIC mode. In this way, one can visualize ultra-thin film (0.7 nm) and isolated wire-like object of nanometer size diameter (nanotube, combed DNA). It can operate in air or in immersion and should be of great value in the studies of biological structures.

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