ONE-BIT DIFFRACTION TOMOGRAPHY AND OPTIMAL DOSE FRACTIONATION

ALBERT FANNJIANG

Abstract: We study 1-bit diffraction tomography with intensityonly binary measurements obtained through coded apertures and show numerically that with moderate oversampling, such a method Is noiserobust. We investigate the problem of dose fractionation, revealing optimal performance at a signal-to-noise ratio near 1, independent of the total dose.