Inside modulation-collimator-based Fourier Transform imaging

A.Gu,Q.(1)

(1)Purple Mountain Observatory

By discussing the principle and the implementation of modulation_collimator_based Fourier Transform imaging,we conclude the universal rule of imaging with few sensors/detectors,that is image compression with hardware first ,image reconstruction with software following. In this paper we discuss (1) why do we choose Fourier Transform (2)how modulation collimator modulates the photons ,along with the relation to Fourier Transform (3)how the images of the source are reconstructed and cleared (4)what do we learn from modulation_collimator_based Fourier transform imaging