a MEIF-FPM pipeline

Raw Data Acquisition

MEIF

FPM Reconstruction

b Raw Data Acquisition

Raw Data

Imaging system

Sample

LED Array

c Tradition FPM Reconstruction

Raw images

Initialize object

Initialize pupil

Inverse FT

Support constraint

Modulus constraint

Iteration

Pupil function

Fourier spectrum

FT

Recovered intensity and phase

d FD-FPM Reconstruction

A mini-batch observed raw images

A mini-batch images(observed)

Raw Data Acquisition

Feature Extraction

Feature-domain error

Forward model

A mini-batch predicted images

A mini-batch images(predicted)

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②

③

④

⑥

Optimizer

⑤

Leaning for parameters

Iteration