Homodyne +
std. GNLC (KB)   **Homodyne +**
std. GNLC (cubic spline)   **Homodyne +**
NUFFT

(a)   (b)   (c)

Figure S1: Homodyne reconstruction results with conventional image-domain GNL correction implemented via a Kaiser Bessel window (a), via a cubic spline interpolation (b), and the result of the proposed NUFFT-based homodyne reconstruction with integrated GNL correction (c). In (a), the image obtained from conventional homodyne reconstruction is first sinc-interpolated with the same oversampling factor ($1.25 \times$), and then image-domain corrected with Kaiser Bessel window of the same size (5 points) as that used in NUFFT. In (b), the image is similarly processed as (a) but uses the conventional cubic spline interpolator. (c) is the proposed NUFFT-based homodyne reconstruction result as described in this work.