

At present:

Noise suppression in reconstructed object wave using Apodization:

Setup: Mach-Zehnder in transmission with both He-Ne and SHG light.

Sample is sarcomere

Results of He-Ne light (highly coherent); hologram and reconstructed intensity before and after suppression with apodization are shown in Fig.1.

Purpose:

To quantify the noise in phase contrast image and compare it with its counterpart using SHG.

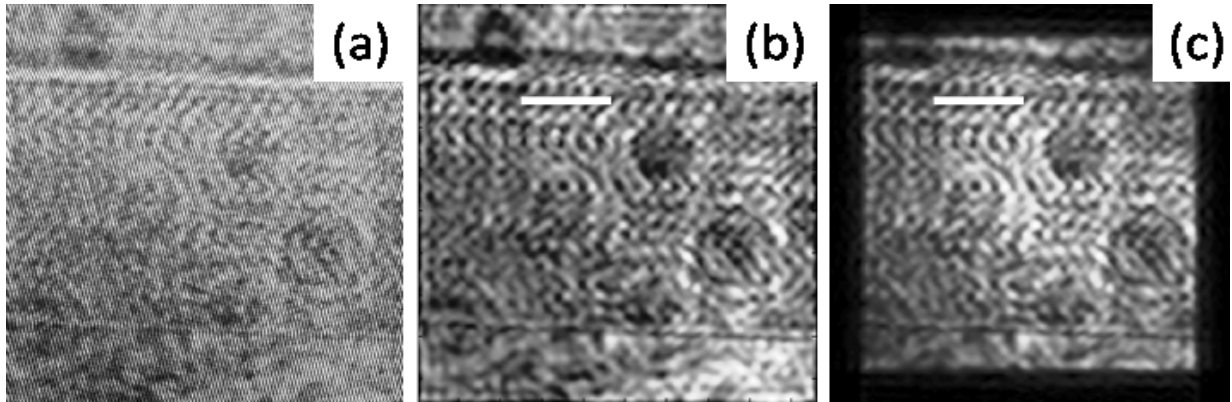


Fig.1. Noise reduction using apodization: (a) hologram, (b) reconstructed intensity without apodization, and (c) reconstructed intensity with apodization.

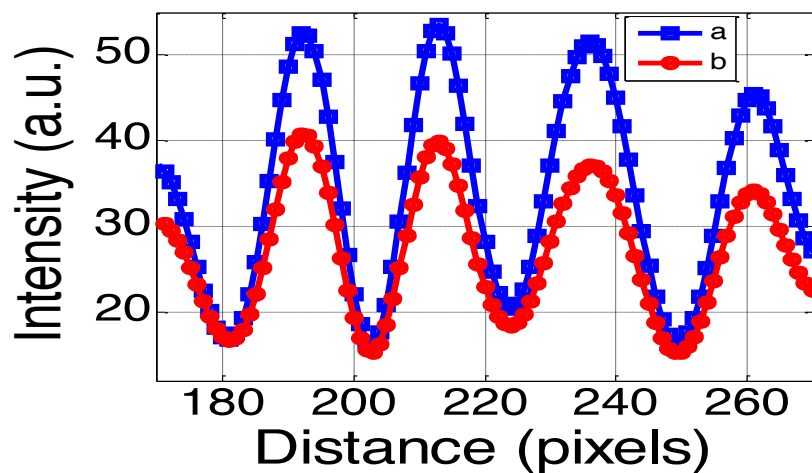


Fig.2. (a) with apodization and (b) without.