

Proposed title of the paper:

**High-resolution, wide-field digital holographic microscopy based on partially coherent, instantaneously bright, femtosecond pulse light**

At present:

Noise suppression in phase-contrast image using Apodization:

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

Sample is sarcomere

Purpose:

To quantify the noise in phase-contrast image and compare it with its counterpart using femtosecond pulse light.

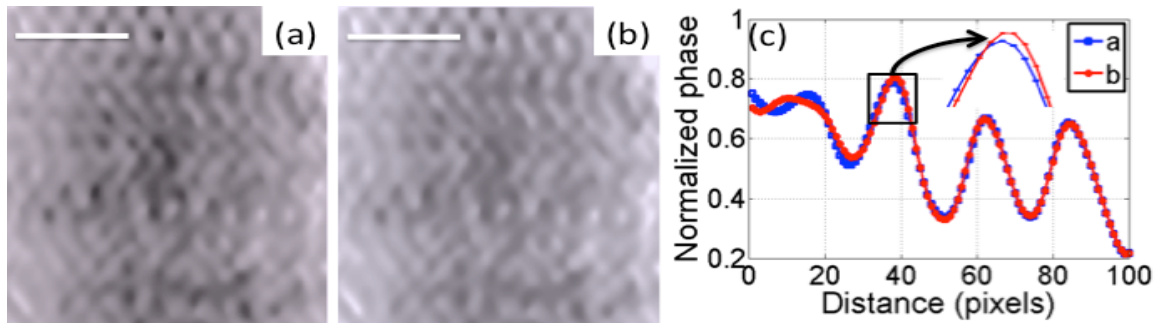


Fig.1. Reconstructed phase; (a) without apodization, (b) with apodization, and (c) 1D normalized phase with and without apodization across 4 sarcomeres.

Results:

Usually, the quality of both amplitude and phase-contrast images are increased and the level of noise is suppressed. If there is no change in level of noise, this means femtosecond pulse light is powerful i.e. does not need numerical techniques to suppress the coherent noise.