

Embedded pupil function recovery for Fourier ptychographic microscopy: erratum

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Abstract: In the original paper, the line width of the resolution target (which corresponds to half-pitch resolution) was used to characterize the resolution of our microscope system. However, we think that full-pitch resolution offers a better definition of the imaging system's resolution limit. In this erratum, we list specific sections from the manuscript that used half-pitch resolution and correct them accordingly.

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OCIS codes: (180.0180) Microscopy; (100.0100) Image processing.

References and links

1. X. Ou, G. Zheng, and C. Yang, "Embedded pupil function recovery for Fourier ptychographic microscopy," *Opt. Express* **22**(5), 4960–4972 (2014).
2. G. Zheng, R. Horstmeyer, and C. Yang, "Wide-field, high-resolution Fourier ptychographic microscopy," *Nat. Photonics* **7**(9), 739–745 (2013).
3. G. Zheng, R. Horstmeyer, and C. Yang, "Corrigendum: Wide-field, high-resolution Fourier ptychographic microscopy," *Nat. Photonics* **9**(9), 621 (2015).

In section 1, paragraph 2 of our original paper [1], we cited our first work on Fourier ptychographic microscopy [2] stating that it is '*a high-resolution (0.78 μm , 0.5 NA), wide-FOV ($\sim 120 \text{ mm}^2$) microscope with a final SBP of ~ 1 gigapixel*'. As mentioned in the corrigendum of Ref. [2,3], the reported resolution for the microscope was its half-pitch resolution. However, full-pitch resolution offers a better definition of the imaging system's resolution limit. Here we correct that the reported FPM system has 1.56 μm full-pitch resolution and ~ 0.23 gigapixel spatial bandwidth product.

In section 5, paragraph 3 of our original paper [1], we stated that '*As shown in Fig. 6(c3), 6(c4), group 9 element 3 can be resolved, resulting in a resolution of $\sim 780 \mu\text{m}$ throughout the entire FOV.*' We hereby correct this statement: '*As shown in Fig. 6(c3), 6(c4), group 9 element 3 can be resolved, resulting in a resolution of $\sim 1.56 \mu\text{m}$ throughout the entire FOV.*