iX Cameras

TECH NOTE

Title: **PIXEL SIZE EFFECT ON DIGITAL IMAGE CORRELATION**

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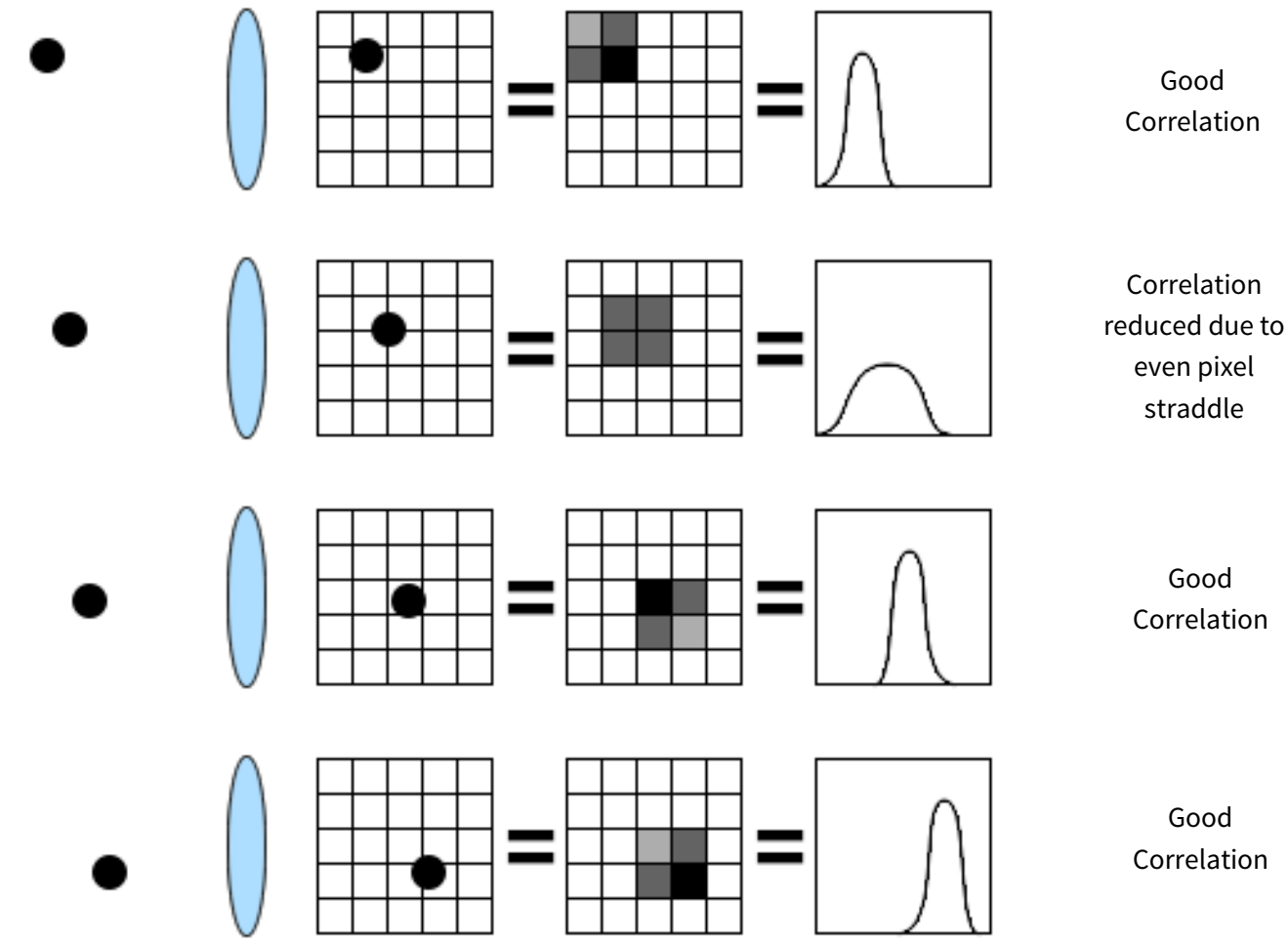
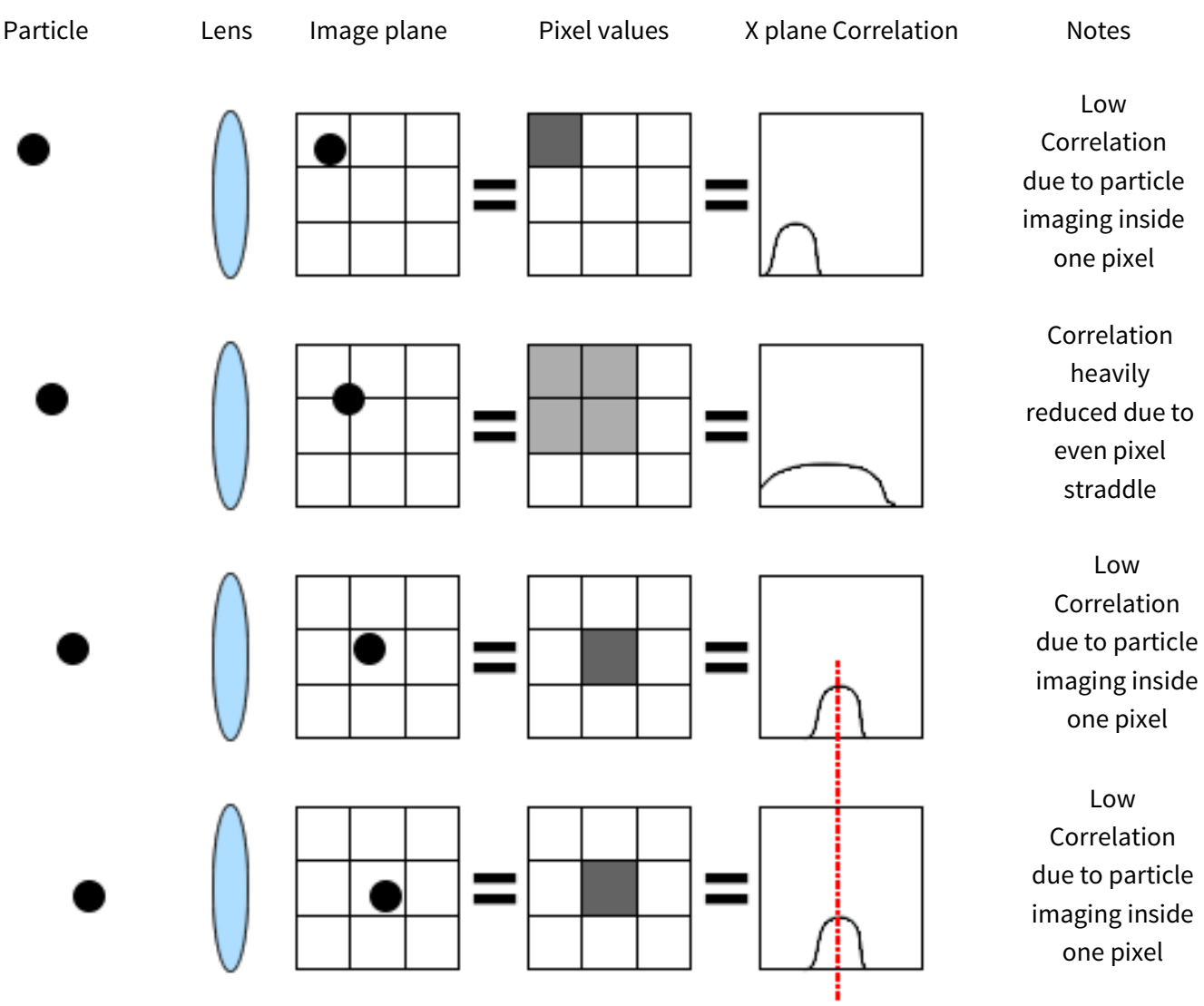
When attempting to correlate small particles, the pixel size of the image sensor has a dramatic effect on correlation results. Please see the examples below as to why this occurs.

13µm particle with 13.5µm pixels



13µm particle with 25µm pixels



As can be seen from the pixel values and the correlation examples, the larger pixel size makes it very hard to correlate particle size and particle speed (no speed difference between frame 3 and frame 4).