# Single molecule localization microscopy

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# Direction stochastic optical reconstruction microscopy

# Photoswitchable organic dyes

# A model of photoswitching between ON and OFF states

# Quantifying and optimizing single-molecule switching

# PSF model and pixel-wise gain measurements

# Pixel-wise readout noise measurements

# The Fisher information metric and Cramer-Rao bound

# Monte Carlo estimation of the Cramer-Rao Bound

Start with $\theta_{\mathrm{MLE}}$, use MCMC to explore the parameter space. How to ensure $\theta_{\mathrm{MLE}}$ is a good starting point? Or should I start at the true parameters?

# Experimental determinants of localization accuracy