

Abstract Submitted  
for the MAR07 Meeting of  
The American Physical Society

**Image Correlation Spectroscopy of Actin Networks** JEFFREY URBACH, DAN SISAN, Georgetown University — We analyze fluctuations of entangled and cross-linked networks of fluorescently-labeled actin filaments using fourier space image correlation spectroscopy. Images from a fast confocal microscope are fourier-transformed, and the autocorrelation function for each wave vector is separately computed, producing the equivalent of the intermediate scattering function. We find that for entangled networks the long time decay of the long wavelenth modes is diffusive, possibly due to to filament reptation, but that the short-time behavior is more complicated

Jeffrey Urbach  
Georgetown University

Date submitted: 20 Nov 2006

Electronic form version 1.4