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Multiple-Particle-Tracking Microrheology for Biological Materials.

In multiple-particle-tracking microrheology (MPTM), rheological properties of fluids are determined from the Stokes-Einstein theory applied to Brownian motion of small suspended particles. In this talk, we discuss the current progress and present our recent data on the development of MPTM algorithms for accurate measurement of viscosity and other material constants of biological fluids and living cells. (Received August 28, 2012)