

Physics Seminar

Optical Tweezers

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**Friday
March 12
3:30pm
Ross 0220**

In 1986, Dr. Arthur Ashkin demonstrated that small dielectric spheres can be held in place using a focused laser beam. Following further refinement, laser trapping proved capable of capturing individual bacteria, organelles, and even DNA. This discovery has provided biologists with incredible opportunities to manipulate and further understand biological entities on the micro-scale. Laser tweezers have the added benefit that they do not destroy the subject being studied. A brief introduction to laser tweezers will be discussed. Basic physics behind the laser trap will be covered, as well as some specific applications.