



# Single-Molecule Fluorescence Studies of Biomolecular Dynamics

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Abstract:

Single-molecule fluorescence methods uncover the presence of static and dynamic heterogeneity in many biomolecular systems. I will discuss the use of single-molecule Foerster resonance energy transfer in studies of the conformational dynamics of DNA polymerase and derivatives thereof with decreased fidelity for DNA synthesis. I will also discuss two new single-molecule methods: switchable-FRET, a method that allow measurements of multiple distances within a single molecule by combining FRET with acceptor photo switching; and DAO-STORM, a new algorithm that enables super-resolution imaging in crowded field of molecules.

**Friday, January 28<sup>th</sup>, 2011, 13:00**

**Room PH 127**

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