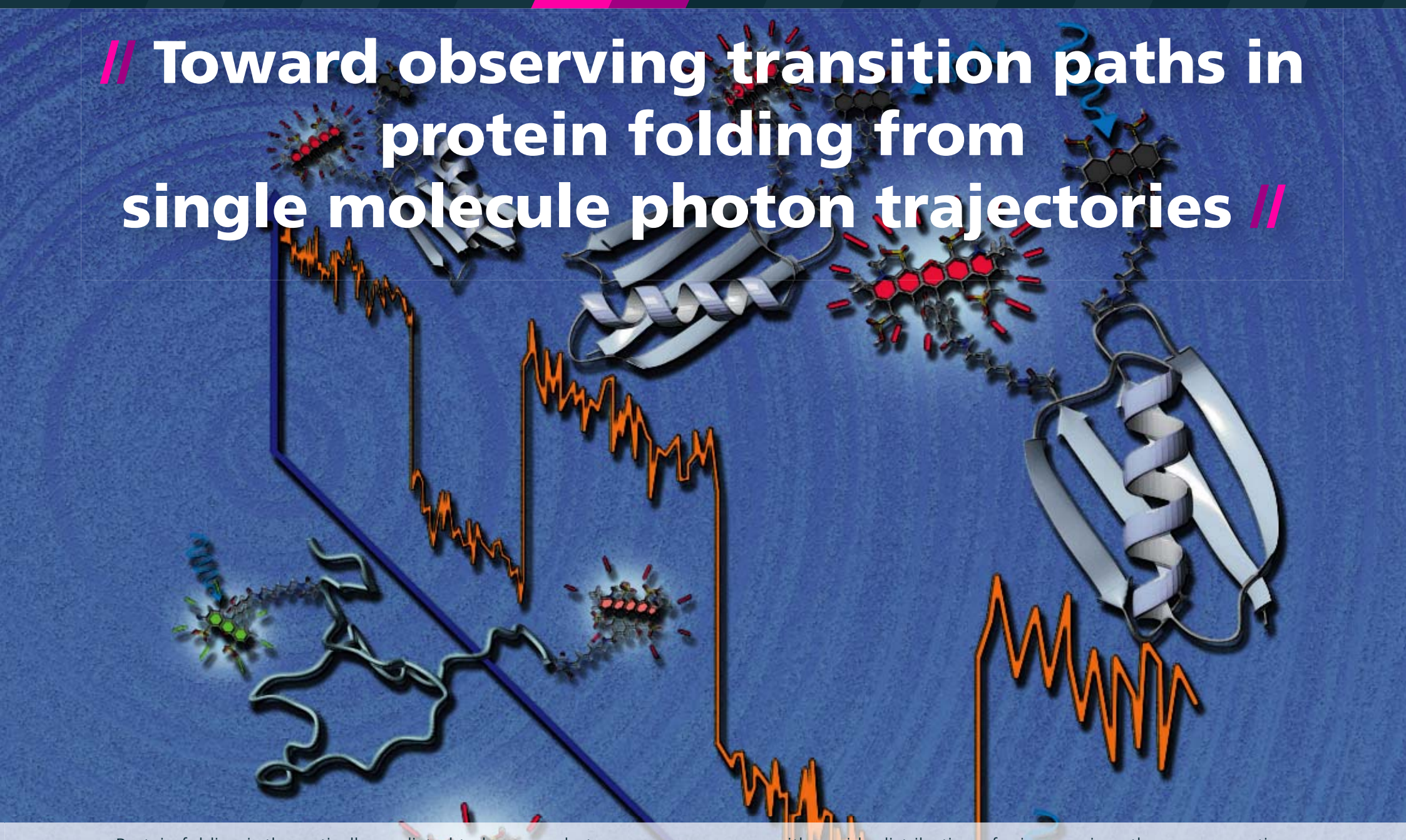
UNIVERSITÀ DEGLI STUDI DI MILANO

SCUOLA DI DOTTORATO IN FISICA
ASTROFISICA E FISICA APPLICATA

2011/2012 Physics Colloquia

// Toward observing transition paths in protein folding from single molecule photon trajectories //



Protein folding is theoretically predicted to be a very heterogeneous process, with a wide distribution of microscopic pathways connecting the folded and unfolded states.
Single molecule experiments are required to observe this heterogeneity, but the experiments are challenging because the sought after mechanistic information is contained in the transition path, which is the tiny fraction of an equilibrium trajectory when the molecule makes successful transitions between the unfolded and folded states.
Even the duration of a transition path has not yet been measured for any molecular process in solution.
As a first step toward observing transition paths in protein folding, we are using maximum likelihood methods to analyze photon trajectories in single molecule fluorescence experiments in order to obtain at least an upper bound for the transition path time.

27 MAR 2012

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Toward observing transition paths in protein folding from single molecule photon trajectories

Gli incontri si terranno alle **ore 15:00**
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