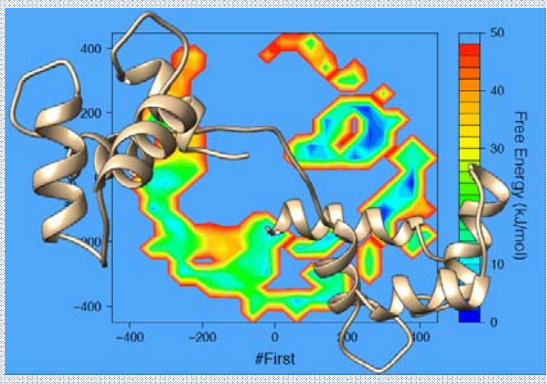
Integrative Dynamical Biology: How to model and what we learn from protein dynamics

Inaugural Lecture by Rudolf Mößbauer Tenure Track Professor Carlo Camilloni

Tuesday, Jan. 26, 2016 | 17:00 c.t. | Dep. of Chemistry, Room 26411

Proteins are the building blocks of most of the machineries responsible to perform the biochemical tasks in living organisms. Their functions are the result of finely tuned conformational properties. Describing the properties of biomolecules' conformational space and the determining forces it is essential to understand a variety of fundamental mechanisms, including protein synthesis, folding, function and degradation as well as protein misfolding, misfunction and aggregation.



We develop computational methods to provide high-resolution descriptions of the behavior of biomolecules by integrating experimental data and molecular simulations making use of inferential techniques. And we apply these methods to shed light on processes from folding and function to misfolding and aggregation.
With this lecture I will give an overview of the methods, show some example applications and introduce the future lines of development that will be pursued in the group for Integrative Structural Biology at the TUM Institute for Advanced Study and Department of Chemistry.

There will be a reception after the lecture.

Speaker:
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