

Understanding the “native” solvent – from dilute solutions into the cell

The cellular solvent – better known as the cytosol – is a complex solution of various salts, metabolites and macromolecules where the macromolecular concentration can be as high as 400 g/l. These peptides and proteins can influence each other, affecting folding, mobility or association properties.

In this advanced module, participants will have the opportunity to get first-hand experience how the influence of the cellular environment on protein properties like unfolding or aggregation can be studied inside living cells. As part of this advanced module we will give an introduction into “Fast Relaxation Imaging (Frel)” – a technique which combines fluorescence imaging with laser induced temperature jumps. Participants will be able to apply this technique to samples related to our current research projects.