

# General fluorescence

The goal the tutorials is to provide introductory information for the analysis and interpretation of fluorescence data acquired by time-tagged time resolved (TTTR) data. The analysis of TTTR-data includes:

- Fluorescence decay analysis
- Fluorescence correlation spectroscopy
- Single molecule detection

The software ChiSurf implements the methods for data analysis and interpretation presented by the tutorials. ChiSurf is developed in Python for 64bit-Windows machines and provided as a downloadable installer.

## Fluorescence decay analysis

- Global analysis of multiple fluorescence decays
- Generation of fluorescence decay histograms based on TTTR data
- Analysis of time-resolved anisotropy decays
- Analysis of FRET quenched fluorescence decays by physical model functions <sup>1</sup>

## Fluorescence correlation spectroscopy

- Analysis of FCS curves
- Correlation of TTTR-data by efficient correlation algorithms <sup>2</sup>