

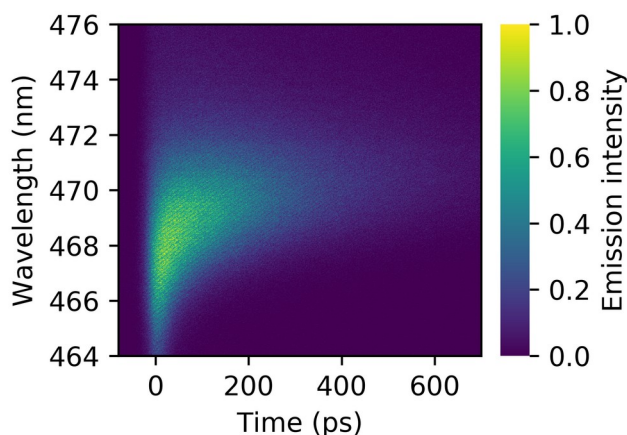
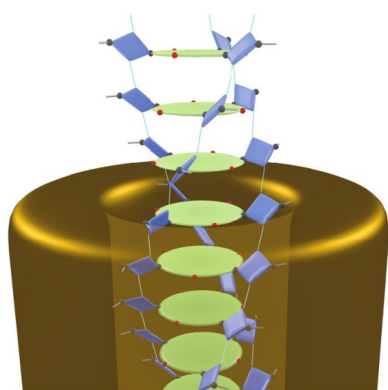


# Time-Resolved Emission Spectroscopy on Self-Assembled Nanostructures

*Master / Bachelor research project*

## **Our idea:**

Self-assembly of organic molecules into supramolecular nanostructures often results in different species of aggregates with slightly different molecular arrangement. The photophysical properties of such species often differ in the **spectral and the temporal domain**. In this project, you will use an interferometer-based approach to discriminate between different species of aggregates, analyze their photophysical properties, and reveal details about **intermolecular order**.



## **Your contribution:**

- Take into operation a compact interferometer with time correlated single photon (TCSPC) detection
- Identify various aggregate species via time-resolved emission spectroscopy (TRES)
- Resolve energy-transfer between different aggregate species in the time-domain
- Operate state-of-the-art equipment for spatially- and time-resolved spectroscopy



## **Contact us:**

Learn more and get to know us:

**Prof. Dr. Richard Hildner**

Office: 5117.0011  
r.m.hildner@rug.nl  
+31 50 36 38149

**Sebastian Stäter**

Office: 5117.0006  
sebastian.staeter@rug.nl  
+31 50 36 32416

**Ioannis Touloupas**

Office: 5117.0006  
i.touloupas@rug.nl  
+31 50 36 32416

(Spring 2020)