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## Single-Molecule Spectroscopy: Beyond the Ensemble Average

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**Abstract content** **Formatting & Special chars**

Single-molecule spectroscopy is a powerful tool for studying the dynamics and properties of macromolecules. By unmasking phenomena that are hidden in standard ensemble approaches, single-molecule techniques enable us to obtain detailed information about the molecular machinery of the cell by quantifying their fundamental physical properties, revealing the heterogeneity of their biological functionalities, and by sensitively and selectively manipulating the interactions within and between individual biomolecules. This lecture will highlight a selection of popular single-molecule spectroscopy techniques and demonstrate their application to the light-harvesting pigment-protein complexes of different photosynthetic organisms.

**Apply to be considered for a student award (Yes / No)?**

No

**Level for award (Hons, MSc, PhD, N/A)?**

N/A

**Main supervisor (name and email) and his / her institution**

N/A

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

No

**Please indicate whether this abstract may be published online (Yes / No)**

Yes

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