

Ph.D. projects in progress

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Doctoral School: University of Szeged, Faculty of Science and Informatics, Doctoral School of Physics

Ph.D. student: Rita Nagypál

Title of the research topic: Fluorescence kinetic measurements on biological objects with femtosecond time resolution

Description of the research topic: Investigation of fluorescence kinetics of intrinsic or artificially bound chromophores in different biological samples (proteins, membranes, photosynthetic units, cell cultures) with time resolution of ~200 fs, applying the methods of nonlinear optics and time-correlated single photon counting. Searching for models based on the relationships between the kinetic parameters and the heterogenous microenvironment for supporting both fundamental biological research and potential biomedical applications.