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Protonation Dynamics
in Protein Function

➤ Seminar

Thu, July 10, 2014 ▪ 10:15 – 11:45 ▪ Lecture Hall B of the Physics Dept.
at Freie Universität Berlin (Arnimallee 14, 14195 Berlin-Dahlem)

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Microbial Rhodopsins and Aquaporin – Spectroscopic Insights into the Inner Workings of Membrane Proteins

Microbial rhodopsins often serve as prototypical membrane proteins on which various advanced biophysical techniques are developed and common rules of membrane protein biology are established. Our group have been studying various aspects of membrane protein biology using biospectroscopic studies of novel microbial rhodopsins, mainly by vibrational spectroscopy and solid-state NMR. These aspects include structure, oligomerization, conformational dynamics, and proton-conducting pathways of retinal proteins. I will present our latest results on microbial rhodopsins as well as our recent foray into human proteins as represented by water channel aquaporin 1.

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