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Short Visit Report

ESF PLASMON-BIONANOSENSE

I visited the group of Prof. Rainer Hillenbrand Sept. 2nd to 9th to learn more about near-field optical techniques and explore potential applications to on-going work at Imperial College on quenching excited states for enhanced photostability during fluorescence imaging. Discussions with the group members proved to be extremely informative – in particular we discussed the details of s-SNOM and potential approaches for performing near-field photo-induced absorption experiments and noise reduction. At the moment we plan on finishing current far-field experiments in London, but based on the results may want to pursue further collaboration to perform near-field imaging of our structures.

The visit also coincided with the ESF BIONANOSENSE day at the NFO conference which was extremely informative and highlighted the current state-of-the-art in plasmonic resonance-based sensing. I anticipate that several current projects that I am pursuing may explore interesting new possibilities based on work that was presented on that day.