

# COLLOQUIUM ANNOUNCEMENT

**THURSDAY, 01.06.2017**  
**16:00 h ZEMOS 0.17/0.19**

## Prof. Dr. Franz M. Geiger

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### “Second-Order Vibrational Lineshapes from Charged Interfaces”

The influence of the surface potential on the lineshapes of second-order spectra, which yield microscopic information about interfaces, has remained enigmatic until now. Here, we reveal considerable potential-dependent contributions and demonstrate how to account for them when seeking molecular information from charged interfaces using second-order spectroscopy. This work is based on the following documents:

“Second-Order Spectral Lineshapes from Charged Interfaces”, Paul E. Ohno, Hong-fei Wang, & Franz M. Geiger, arXiv, 1703.03686 in cond-mat.mtrl-sci (2017)

“Phase- referenced Nonlinear Spectroscopy of the alpha-Quartz/Water Interface”, Paul. E. Ohno, Sarah A. Saslow, Hong-fei Wang, Franz M. Geiger, & Kenneth B. Eisenthal, Nature Communications, 7, 13587 (2016), and

“Aqueous proton transfer across single-layer graphene”, Jennifer L. Achtyl, Raymond R. Unocic, Lijun Xu, Yu Cai, Muralikrishna Raju, Weiwei Zhang, Robert L. Sacci, Ivan V. Vlassiounk, Pasquale F. Fulvio, Panchapakesan Ganesh, David J. Wesolowski, Sheng Dai, Adri C. T. van Duin, Matthew Neurock & Franz M. Geiger, Nature Communications, 6, 6539 (2015)

**Guests are very welcome!**