THE UNIVERSITY OF TENNESSEE CHATTANOOGA

Center of Excellence in Applied Computational Science and Engineering

presents

"Reactive transport modeling in aquatic environments: Putting bugs in the code"

given by **Dr. Christof Meile**

Professor, Department of Marine Sciences,
University of Georgia, Athens
March 22nd, 1:45 p.m., UTC SimCenter Auditorium*

Public Invited

Reactive transport modeling of microbially mediated processes contributes to an improved understanding of elemental cycling in Earth near-surface environments. I will discuss how microbial processes have been represented in reactive transport models, show applications from marine sediments and present recent advances in modeling approaches. An additional challenge is discrepancy between the scale of reactive transport models and the local environment of microbes that determines their metabolism. I will discuss recent work studying methane dynamics and anaerobic methane oxidation in cold seep environments both at the micro- and the macroscale.

Christof Meile is a Professor in the Department of Marine Sciences at the University of Georgia. He completed his undergraduate at the Swiss Federal Institute of Technology in Zurich (ETHZ) in Environmental Sciences, received a MS in Earth and Atmospheric Sciences from the Georgia Institute of Technology (USA) and earned a PhD from the Faculty of Earth Science at Utrecht University (The Netherlands). His interests lie in understanding and modeling biogeochemical cycling in near-surface environments, ranging from deep-sea sediments and seeps to coastal settings and tropical soils.

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