

Göttingen, 18.10.2024

**Invitation to the university public lecture as part of the
evaluation procedure for the
W2-t.t.-W3 professorship “Computational Mathematics”
at the
Institute of Numerical and Applied Mathematics on**

**Tuesday, October 29, 2024, 2:15 p.m.
in the
Sitzungszimmer (1.103, 1st floor) of the Mathematical Institute
at Bunsenstraße 3-5.**

Lecturer: Prof. Dr. Lehrenfeld, Institute of Numerical and Applied Mathematics

Title: Tuning the Role of Unknowns in Higher Order Finite Element Methods

Abstract: In this talk, we explore higher-order finite element discretizations, important tools in simulation sciences. We focus on techniques geared towards mitigating the computational burden that comes with higher-order finite element spaces. The concept of static condensation and hybridization is revisited and a new perspective on Trefftz-like methods as an alternative approach is investigated.