

Im

Oberseminar Analysis

hält

Dr. Martin Licht

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einen Vortrag zum Thema

An invitation to finite element exterior calculus

Abstract:

Finite element exterior calculus (FEEC) has had a transformative impact on the theoretical foundations of finite element methods. Its fundamental paradigm is that differential complexes, such as the de Rham complex, are central to the analysis of partial differential equations in vector fields and must therefore also be reflected in finite element discretizations. This perspective has led to a powerful theory of finite element de Rham complexes, which now forms the theoretical bedrock of numerical electromagnetism.

This talk gives a broad overview of the theory, which lies at the intersection of numerical analysis, algebraic topology, and differential geometry. We also discuss contributions that address mixed boundary conditions and the estimate of Poincaré-Friedrichs constants.

Datum: **Donnerstag, 4. Juni 2026**

Zeit: **16:40 Uhr**

Raum: **WIL A 124**

Kontakt: Prof. Dr. Ralph Chill

Alle Interessent:innen sind herzlich eingeladen