Center for Computational Mathematics Seminar

Martin Licht
UCSD

Smooth commuting projections in rough settings: Weakly Lipschitz domains and mixed boundary conditions

Abstract:

The numerical analysis of finite element methods in computational electromagnetism can be developed elegantly and comprehensively if commuting projection operators between de Rham complexes are available. Hence the construction of such commuting projection operators is central but has been elusive in several practical relevant settings of low regularity. In this talk we describe how to close this gap: we construct smoothed projections over weakly Lipschitz domains and extend the theory to mixed boundary conditions.

Tuesday, October 24, 2017
11:00 AM
AP&M 2402