

Finite Element exterior Calculus on smoother finite element spaces.

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The finite element exterior calculus is a powerful approach to study many problems under the same lense. The canonical finite elements spaces considered for example by Arnold Falk and Winther which are tied together with an exact sequence have the required smoothness to define the exterior derivatives, but some applications require spaces that are more smooth. In this talk we will discuss some recent results in developing finite element spaces on simplicial triangulation with more smoothness that also fit an exact sequences.