

JOHANNES KEPLER UNIVERSITÄT LINZ INSTITUT FÜR NUMERISCHE MATHEMATIK

o.Univ.-Prof. Dr. Ulrich Langer

Talk announcement

Prof. Dirk Pauly

(University of Duisburg-Essen)

Thursday, March 3, 2016 13:45, S2 416-2

Solenoidal and irrotational vector fields in \mathbf{H}^{-1} and related topics

We present well known results for Maxwells equations on the L^2 -level, such as vector potentials, Helmholtz decompositions, static solution theories, Maxwell estimates, and regular decompositions, on the not so popular H^{-1} -level.

Moreover, we compute the dual spaces of R° and D° and discuss regularity results, such as Necas' lemma.

At the end we might discuss some applications.