
Vector Valued Singular Integrals on Spaces of Homogeneous Type*Markus Passenbrunner** (Univ. Linz), *Paul F.X. Müller* (Univ. Linz)

TUE/110 17:00–17:20

We prove a vector-valued $T(1)$ -Theorem for Calderón-Zygmund operators on spaces of homogeneous type. To do this, we decompose the corresponding kernels as absolutely converging series of operators rearranging isotropic Haar wavelets.

The main difficulty lies in estimating these rearrangement operators in the absence of any group structure on the underlying space of homogeneous type. Nevertheless, our basic tool in [1] was the L_E^p -boundedness of our rearrangement operators, which can be shown to hold even in our setting.

- [1] P.F.X. MÜLLER AND M. PASSENBRUNNER: A Representation Theorem of Vector valued Singular Integral Operators on Spaces of Homogeneous Type. *Preprint*.