

## POSTER

**BMO-Regularity for a Degenerate Transmission Problem**

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**Abstract**

We examine a transmission problem driven by a degenerate quasilinear operator with a natural interface condition. Two aspects of the problem entail genuine difficulties in the analysis: the absence of representation formulas for the operator and the degenerate nature of the diffusion process. For bounded interface data, we prove the local boundedness of weak solutions and establish an estimate for their gradient in BMO-spaces. The latter implies solutions are of class  $C^{0, \text{Log-Lip}}$  across the interface. Relaxing the assumptions on the data, we establish local Hölder continuity for the solutions.

**Keywords** Transmission problems, BMO gradient estimates, Log – Lip regularity.

**References**

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