

Speaker: Leah Schätzler

Title: *Continuity results for the obstacle problem to porous medium type equations*

Abstract:

This talk is concerned with the obstacle problem to PDEs whose prototype is the porous medium equation/fast diffusion equation

$$\partial_t(|u|^{q-1}u) - \Delta u = 0 \quad \text{in } \Omega \times (0, T) \subset \mathbb{R}^{n+1}$$

with a parameter $q \in (0, \infty)$. I will discuss (Hölder) continuity results for signed weak solutions to this problem under a suitable continuity assumption on the obstacle function.

The talk is based on joint work with Kristian Moring.