Hölder continuity for a homogenous doubly nonlinear equation Verena Bögelein, Salzburg

In this talk we consider homogeneous doubly nonlinear evolution equations whose simplest model is

$$\partial_t \left(|u|^{p-2} u \right) - \operatorname{div} \left(|Du|^{p-2} Du \right) = 0.$$

In the literature only nonnegative solutions have been studied. We establish the local Hölder continuity of signed solutions for any p > 1.