1108-35-509 Michael Hinz* (mhinz@math.uni-bielefeld.de), University of Bielefeld, Department of Mathematics, P.O. Box 100131, 33501 Bielefeld, Germany. Some remarks on nonlinear PDE on fractals.

In this talk we deal with some recent results for PDE on fractals. The equations we consider may have nonlinear terms that involve gradients. We discuss how classical methods transfer to fractals that carry a suitable energy (Dirichlet or resistance) form. As examples we discuss (1) weak solutions to a fractal analog of Burger's equation and (2) some items of the calculus of variations. (Received January 20, 2015)