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Anders Björn, Jana Björn, James T. Gill* (jgill15@slu.edu) and **Nageswari Shanmugalingam**. *Geometric analysis on Cantor sets and trees*.

Using uniformization, Cantor type sets can be regarded as boundaries of rooted trees. In this setting, we show that the trace of a first-order Sobolev space on the boundary of a regular rooted tree is exactly a Besov space with an explicit smoothness exponent. Further, we study quasisymmetries between the boundaries of two trees, and show that they have rough quasiisometric extensions to the tree. We also show the converse. (Received August 14, 2013)