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Martin H Weissman* (weissman@ucsc.edu), Dept of Mathematics, UCSC, 1156 High Street, Santa Cruz, CA 95064. *Sheaves on Bruhat-Tits trees, with applications to supercuspidal representations.*

In their influential 1997 Pub. Math. IHES paper, Schneider and Stuhler realized irreducible representations of p -adic groups in the cohomology of equivariant sheaves on the building. For semisimple p -adic groups of relative rank one, this realizes every supercuspidal representation as H^0 of a sheaf on the Bruhat-Tits tree.

In this talk, I will introduce the Schneider-Stuhler method in the concrete setting of sheaves on trees. Then I will describe refinements that allow one to prove that supercuspidals are compactly induced for groups of relative rank one. Notably, this method avoids tameness assumptions, while illustrating differences in wild settings. (Received August 10, 2018)