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Ian T Le* (iantuanle@gmail.com), Department of Mathematics, 2033 Sheridan Rd., Evanston, IL 60208-2730. *Positive Configurations in Affine Buildings*.

I will define positive configurations of points inside the affine building for SL_n , which can be viewed as a higher dimensional generalization of planar trees. They arise as the tropical points of higher Teichmuller space, and the construction involves the cluster algebra structure on higher Teichmuller space.

While general configurations of points in the affine building are rather complicated, positive configurations can be written explicitly, and have a simple parameterization. I will highlight some of their interesting features, like their combinatorial types and duality pairings between configurations. (Received February 18, 2013)