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Ira M Gessel (gessel@brandeis.edu), **Sean Griffin*** (stgriff@uw.edu) and **Vasu Tewari** (vasut@math.washington.edu). *A representation-theoretic interpretation of Gessel's tree symmetric function.*

The first author introduced a multivariate formal power series tracking the distribution of ascents and descents in labeled binary trees. In addition to showing that it was a symmetric function, he conjectured it was Schur-positive. In this talk, we show how to expand this symmetric function positively in terms of ribbon Schur functions. In fact, a refinement of this conjecture holds; we get a family of Schur-positive functions indexed by certain intervals in the Tamari lattice. I will also present our progress in constructing the corresponding symmetric group representations and how certain specializations of the symmetric function relate to actions on hyperplane arrangements. (Received September 12, 2017)