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Eva Czabarka* (czabarka@math.sc.edu), Department of Mathematics, University of South Carolina, Columbia, SC 29208. *Some combinatorial results on gene trees.*

Gene trees are leaf-labeled trees where the labels may be used repeatedly. They usually but not necessarily are assumed to be rooted and binary trees. In this talk we will present some results about counting gene trees, and some Gallai-type results on placing minimum number of duplication episodes on a given species tree explaining a set of gene trees. The enumeration results are joint work with P.L. Erdős, V. Moulton and V. Johnson and use multivariate generating functions. The min-max results on episodes are joint work with L.A. Székely and T.J. Vision. (Received May 31, 2010)