

**Meeting:** 1003, Atlanta, Georgia, SS 35A, AMS-MAA Special Session on Tropical Geometry, I

1003-92-1537      **Lior Pachter\*** (lpachter@math.berkeley.edu), Department of Mathematics, U.C. Berkeley, Berkeley, CA 94708, and **Bernd Sturmfels**. *Tropical geometry for biology*.

One of the fundamental objects of study in biology are phylogenetic trees which were first postulated by Darwin as a means of representing evolutionary relationships between species. In recent work, Speyer and Sturmfels have shown that the space of phylogenetic trees can be regarded as a tropical Grassmannian. We will briefly review this beautiful connection, and then discuss some recent work on the tropical geometry of statistical models using in biological sequence analysis. (Received October 05, 2004)