1117-05-285   **Éva Czabarka*** (`czabarka@math.sc.edu`), **László A Székely** and **Stephan Wagner**. *Paths vs. trees in the local profile of trees.* Preliminary report.

We provide an affirmative answer to a recent question by Bubeck and Linial on the local profile of trees. For a tree T, let $p_1^{(k)}(T)$ be the proportion of paths among all k-vertex subtrees (induced connected subgraphs) of T, and let $p_2^{(k)}(T)$ be the proportion of stars. We show that if $T_1, T_2, \ldots$ is a sequence of trees whose size tends to infinity, then the following four are equivalent: $p_1^{(k)}(T_n) \to 0$; $p_2^{(k)}(T_n) \to 1$; the number of k-vertex subtrees grows superlinearly; and the $(k-1)$-st degree moment grows superlinearly. (Received January 16, 2016)