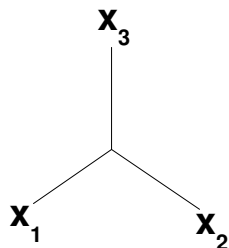


## Sequential addition

One can attempt to find an optimal tree as follows:

Let  $X = \{x_1, \dots, x_n\}$  :

Initially, compute the following tree:



that is  $T_3 := \text{star tree on } \{x_1, x_2, x_3\}$

then for a given tree  $T$  on  $\{x_1, \dots, x_n\}$  :

- determine the best placement for  $x_{i+1}$
- place  $x_{i+1}$  there to get  $T_{i+1}$  on  $\{x_1, \dots, x_n\}$