

# weighted tree generation

**Source:** <http://sci.tech-archive.net/Archive/sci.math.research/2004-10/0253.html>

---

**From:** Diego (*spam4diego\_at\_yahoo.com*)

**Date:** 10/28/04

Date: Thu, 28 Oct 2004 20:30:08 +0000 (UTC)

Hello,

For a given undirected graph  $G(V,E)$  I would like to generate all possible rooted trees. How many will there be? If there are a lot, at least I would like to generate a set of different ones or make a single change to a given tree.

Secondly, is there any standard method to assign weights to an undirected graph such that for a given root, the all shortest paths algorithm (e.g. dijkstra) will yield a given tree? (I guess that you could assign low values to the links that are elements of the tree and high values for all others, but can it be proven that it will always yield the given tree?)

Cheers,

Diego

===

diego at aulignac dot com

www.aulignac.com