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Rose tree

From Wikipedia, the free encyclopedia

For the species of rhododendron, see [Rhododendron maximum](#).

In [computing](#), a **multi-way tree** or **rose tree** is a [tree](#) data structure with a variable and unbounded number of branches per node.^[1]^[*better source needed*] The name *rose tree* for this structure is prevalent in the [functional programming](#) community, e.g., in the context of the [Bird–Meertens formalism](#).^[2] It was coined by [Lambert Meertens](#) to evoke the similarly-named, and similarly-structured, [common rhododendron](#).^[3]

Definition [\[edit\]](#)

The following is a definition in [Haskell](#):

```
data RoseTree a = RoseTree a [RoseTree a]
```

Sources [\[edit\]](#)

- ↑ [Haskell Wiki](#) , accessed 26 January 2012
- ↑ Malcolm, Grant (1990). "Data structures and program transformation". *Science of Computer Programming* **14** (2): 255–279.
- ↑ Skillicorn, David B. (1996). "Parallel implementation of tree skeletons" (PDF). *J. Parallel and Distributed Computing* **39** (2): 115–125.

External links [\[edit\]](#)

- [Rose tree](#) on the Haskell wiki
- [Bayesian Rose Trees](#)
- [Data.Tree](#) , an implementation of basic rose tree operations in the Haskell containers package

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