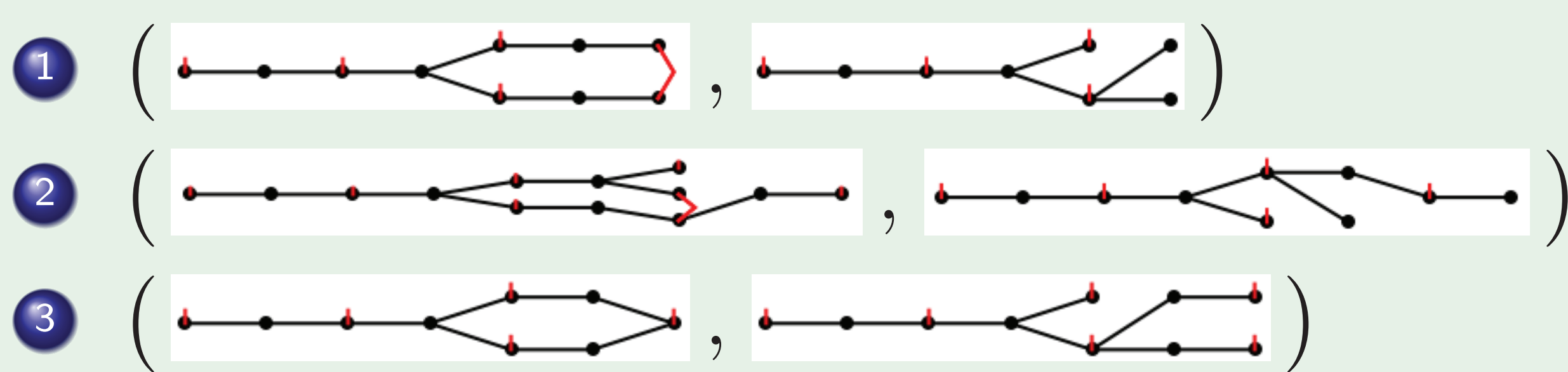


Theorem (Haagerup, '93)

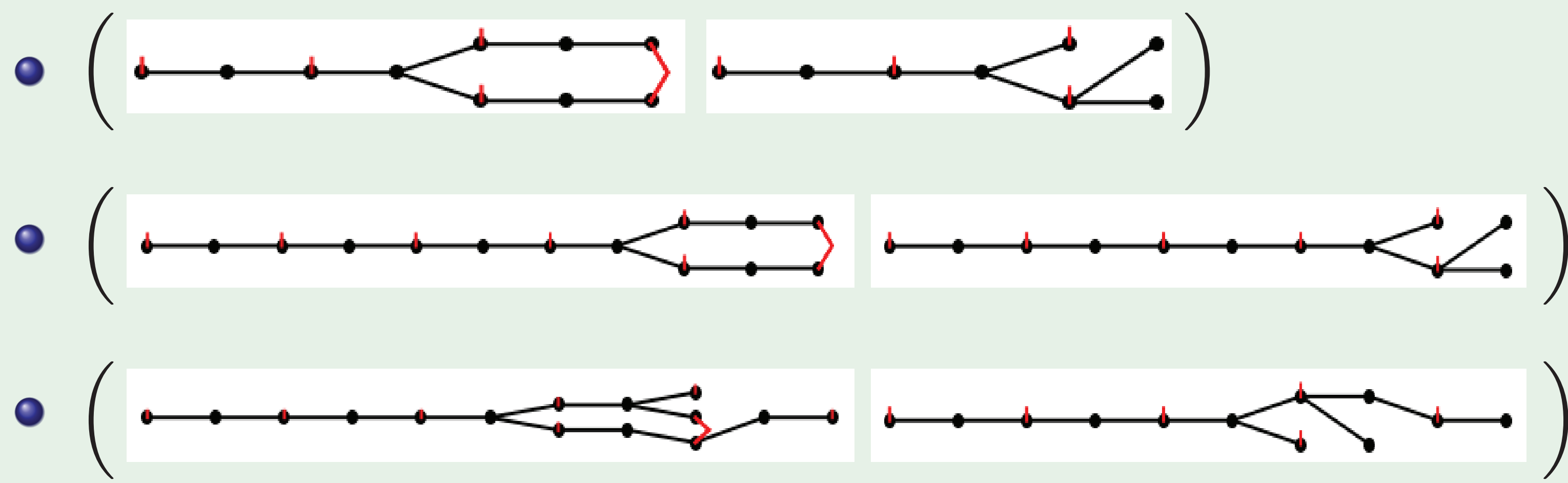
All subfactors other than A_∞ with index in the interval $(4, 3 + \sqrt{3})$ are represented by the following vines:



This was a favourable case, where the enumeration ran out of weeds.

Theorem

There are exactly three subfactors in this range, with principal graphs



Proof.

- Asaeda-Haagerup '98 constructed the first two examples.
- An unpublished result of Haagerup's, and results of Bisch '98, Asaeda-Yasuda '07 showed that there are no others except possibly the third example.
- Bigelow-Morrison-Peters-Snyder '09 constructed the 'extended Haagerup' subfactor. □

Theorem (Morrison-Snyder arXiv:1007.1730)

All subfactors other than A_∞ with index between 4 and 5 are represented by 43 families of vines, or the following 5 weeds.

