Erratum

Efficient Algorithms on Chordal Bipartite and Strongly Chordal Graphs

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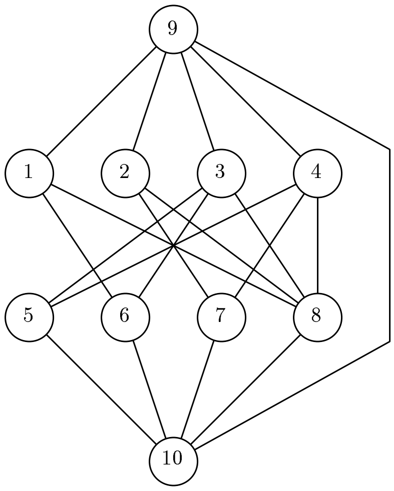
Due to an oversight of the author, the proof of Lemma 2 is incomplete. There are some cases which are left to consider, and as a result, the algorithm `GEN` and simplified `GEN` are not correct. There are some chordal bipartite graphs such that `GEN` and simplified `GEN` produce a vertex ordering that is not a WEO. The following counterexample is due to J. Spinrad and F.F. Dragan: With the universal vertices 9 and 10,



my algorithms can generate $1 < 3 < 2 < 4 < 5 < 6 < 7 < 8 < 9 < 10$. However, the vertex 3 is not weak-simplicial on $G[\{3,4,5,6,7,8,9,10\}]$; the vertex 5 is incident to 4, and the vertex 6 is not.

Hence, up to now, the linear time algorithms for recognition of chordal bipartite and strongly chordal graphs are still open.

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