Corrigendum for

“Multicuts in planar and bounded-genus graphs with bounded number of terminals”

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In [CdV17, Theorem 1.1], an algorithm with running time

$$(g+t)^{O(g+t)} n^{O(\sqrt{g^2+gt})}$$

is described to compute a minimum multicut of a weighted graph with n vertices and edges embedded on a surface of genus g and with t terminals. In this time complexity, the exponent of n, namely $O(\sqrt{g^2+gt})$, may be unclear, due to the ambiguity of the $O(\cdot)$ notation when it depends on two parameters. In particular, when $g=0$, it may seem to imply an algorithm with running time $t^{O(t)} n^{O(1)}$, which we do not claim (actually, such a result would violate ETH [Mar12]). For clarity, the exponent should be replaced with $O(\sqrt{g^2+gt+t})$. A more precise statement would be: For some constant $\alpha > 0$, the algorithm has running time

$$O\left((g+t)^{\alpha(g+t)} n^{\alpha\sqrt{g^2+gt+t+1}}\right).$$

Thanks to Dániel Marx for noticing this!

References

[CdV17] Éric Colin de Verdière. Multicuts in planar and bounded-genus graphs with bounded number of terminals. *Algorithmica*, 78:1206–1224, 2017.

[Mar12] Dániel Marx. A tight lower bound for planar multiway cut with fixed number of terminals. In *Proceedings of the 39th International Colloquium on Automata, Languages and Programming (ICALP) volume 1*, pages 677–688, 2012.