

Corrigendum: On the expressive power of planar perfect matching and permanents of bounded treewidth matrices

Uffe Flarup¹, Pascal Koiran² and Laurent Lyaudet²

¹ Department of Mathematics and Computer Science
Syddansk Universitet, Campusvej 55, 5230 Odense M, Denmark
e-mail: {flarup}@imada.sdu.dk; fax: +45 65 93 26 91

² Laboratoire de l'Informatique du Parallélisme**
Ecole Normale Supérieure de Lyon, 46, allée d'Italie, 69364 Lyon Cedex 07, France
e-mail: {pascal.koiran, laurent.lyaudet}@ens-lyon.fr; fax: +33 4 72 72 80 80

Proof of Theorem 5 given in the proceedings of ISAAC 2007 comports the following error. Please replace the five properties used to define compatibility of (λ_l, λ_r) with λ_t with the following paragraph.

We will say that (λ_l, λ_r) is compatible with λ_t if and only if the following holds:

- no edge in X_t^2 is used in λ_l or λ_r ;
- for every vertex $x \in X_t$ at most one of λ_l, λ_r assigns indegree 1 to x ;
- for every vertex $x \in X_t$ at most one of λ_l, λ_r assigns outdegree 1 to x ;
- for every vertex $x \in X_t$ if λ_l or λ_r assigns indegree 1 to x then λ_t assigns indegree 1 to x and no edge entering x is used by λ_t ;
- for every vertex $x \in X_t$ if λ_l or λ_r assigns outdegree 1 to x then λ_t assigns outdegree 1 to x and no edge leaving x is used by λ_t ;
- every vertex $x \in X_l \setminus X_t$ has indegree 1 and outdegree 1 in λ_l ;
- every vertex $x \in X_r \setminus X_t$ has indegree 1 and outdegree 1 in λ_r .

Correct proofs were given in [1] (english) and [2] (french).

References

1. Uffe Flarup. Optimization and Evaluation Problems over the Real Numbers. Ph.D. Thesis, University of Southern Denmark, 2008.
2. Laurent Lyaudet. Graphes et hypergraphes : complexités algorithmiques et algébriques. Ph.D. Thesis, École Normale Supérieure de Lyon, 2007.

** UMR 5668 ENS Lyon, CNRS, UCBL, INRIA.