

INVERSIONS IN TOURNAMENTS

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ABSTRACT. The inversion of a subset X of the vertex set $V(T)$ of a tournament T consists to invert all arcs of T between two vertices of X . The *inversion index* of T is the least number, denoted by $i(T)$, of subsets of $V(T)$ to invert in order to transform T into an acyclic tournament. Results about this notion originate in the thesis of H.Belkhechine[1]. They have been obtained in collaboration with H. Belkhechine, M. Bouaziz and I.Boudabbous and announced in [2]. Two intriguing question are open: the value of the inversion index of paths of strong connectivity, and a majoration of the size of obstructions of the class $I_n^{<\omega}$ of finite tournaments whose inversion index is a most n (the fact that there is a bound follows from techniques of well quasi ordering). We have no idea about the complexity of the computation of the inversion index.

REFERENCES

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