

Note on “Z. Stanić, Controllability of certain real symmetric matrices with application to controllability of graphs, *Discrete Math. Lett.* **3 (2020) 9–13”***

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In the article [1], I said that the pair (M, \mathbf{b}) is controllable if all the eigenvalues of M are simple and M has no eigenvector orthogonal to \mathbf{b} . It occurs that the first condition is superfluous and can be omitted, since if M has no eigenvector orthogonal to \mathbf{b} , then its eigenvalues must be simple. Indeed, if one of them is non-simple, then the corresponding eigenspace contains an eigenvector orthogonal to \mathbf{b} , for every choice of \mathbf{b} . Therefore, the definition of a controllable pair can be simplified. This detail affects neither the statements nor their proofs.

References

- [1] Z. Stanić, Controllability of certain real symmetric matrices with application to controllability of graphs, *Discrete Math. Lett.* **3** (2020) 9–13.

*Link to the referred article: http://www.dmlett.com/archive/DML20_v3_p9_13.pdf

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