Some LaTeX facilities

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Abstract

This short document is intended to show those students needing to use LaTeX a simple example of how to include EPS files and how to cite references without using BibTeX. The original LaTeX file is also available.

1 Introduction

Let G be a connected *2-in-2-out digraph*, that is, a connected digraph in which each vertex has in-degree and out-degree both equal to 2 (loops and multiple arcs are allowed). Such a digraph is Eulerian. Let $Eu(G)$ be the set of Euler trails in G and let $\gamma \in Eu(G)$.

In [3] the following theorem is proved. *You have just seen an example of citation of a reference.*

In this note we shall give an elementary combinatorial proof of this result.

2 Decomposition of cycles by transpositions

A matrix very similar to I_γ as defined above has already been considered by others [2, 1]. *This is another example of a citation to a reference.*

For our purposes, the main result from [2, 1] is the following. *In this article, the citations are incorporated within the LaTeX file (see the end of the file).*

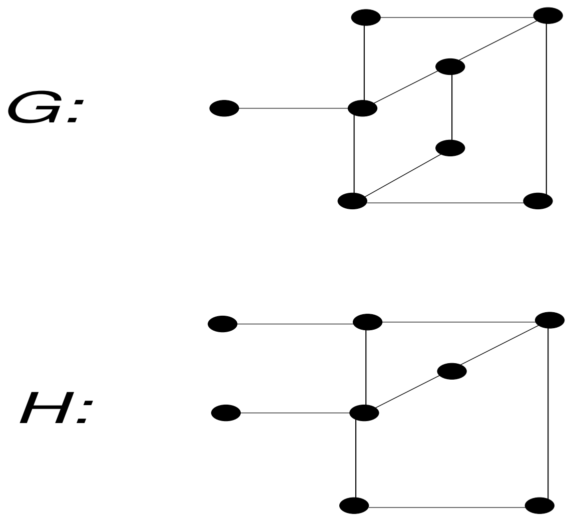

Figure 1: This is the caption for the figure. Change the width and height for a better result

This is sufficient for a small list like this. For a longer list of references, use BibTeX.

Cohn and Lempel [2] proved this result when the transpositions are disjoint, and Beck [2] generalised it for arbitrary transpositions. The case of disjoint transpositions will be sufficient for our purposes.

3 Proof of Theorem 1.1

The proof of Theorem 1.1 will follow as a result of the following.

References

[1] I. Beck. Cycle decomposition by transpositions. *J. Combin. Theory (A)*, 23:198–207, 1977.

[2] M. Cohn and A. Lempel. Cycle decomposition by disjoint transpositions. *J. Combin. Theory (A)*, 13:83–89, 1972.

[3] N. Macris and J.V. Pulé. Note: An alternative formula for the number of Euler trails for a class of digraphs. *Discrete Mathematics*, To appear.