



MESURE ET ACTION DES  $I$ -PERMUTATIONS SUR  
LES MULTIGRAPHES MULTICOLORES  
FINIS ET INFINIS

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**Abstract**

Among other results, the purpose of this article is to show the existence of an  $\mathbb{R}$ -space-vector with basis  $\omega_j^i$ ,  $i, j$  are integers such that every graph with  $n$  vertex  $n \geq 3$  is the vector:

$$\mathcal{V}(n) = \sum_{j=0}^{n-1} \alpha_j^{n-1} \omega_j^{n-1},$$

where  $\alpha_j^{n-1}$  is the number of sub graphs of type  $\omega_j^{n-1}$ . We deduce that two graphs are isomorphic if for any measure, they have the same number of maximal proper subset with this measure.

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