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Errata: "New measures of graph irregularity"

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1. ERRATA

Theorem 3.1 in this paper stated that if G is a graph with degree-based irregularity ν , then:

$$\chi(G) \le \frac{n}{\nu}.$$

We regret that we have found a straightforward error in the proof of this theorem and a counterexample to the theorem.

We have therefore replaced Theorem 3.1 in the paper with the following weaker result:

$$\chi(G) \le \frac{n}{\beta},$$

where β is a spectral measure of graph irregularity, as defined in the paper.

We have also added some new material to the paper to maintain its original length. This involves the properties of an alternative spectral measure of graph irregularity, γ , where:

$$\gamma = \frac{nq}{4m},$$

and q denotes the largest eigenvalue of the signless Laplacian matrix of a graph.

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