Wheel Graphs are Pansophical

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The pansophy of a graph G, i.e. the expected value of the number of simultaneously routable disjoint paths within G, denoted $\Psi(G)$, can be very difficult to calculate. A class of graphs $\mathcal{C}$ is pansophical if, by explicit formula or polynomial-time algorithm, $\Psi(G)$ can be computed for any $G \in \mathcal{C}$.

In this talk, we summarize previously-discovered pansophies, demonstrate the "wheel" class of graphs W_n is pansophical, and make preliminary remarks on exploring the pansophies of joins of graphs. We also discuss a MATLAB program we've written which calculates pansophy by brute force.

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