

1163-05-533

**Lowell E Abrams\*** (labrams@gwu.edu) and **Lindsay-Kay Lauderdale**. *The Wiener Index for Embedded Graphs*.

An invariant of graphs measuring distance between all pairs of vertices.

Consider the ratio (more applicable to embedded graphs) between  
the index of an embedded graph and  
the index of its topological dual.

Choose the surface in which to embed the graphs – what does this imply?

Designate "primal" and "dual" so the ratio is in  $(0 \text{ to } 1]$  – infinite families have ratios  
converging to 0  
converging to 1,  
converging to various values between and

never changing.

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