

# B I-CO MATHEMATICS COLLOQUIUM

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## *"Linking Graphs on a Circle"*

**Monday, October 30, 2006**

Talk at 4:15 p.m. – KINSC H109  
Tea at 4:00 p.m. – KINSC L208, Math Lounge

**Abstract:** Graphs, though defined only by their vertices and edges, are often embedded in the plane or another surface. But what happens when graphs are embedded in space? An interested mathematician can find many properties of graphs to look for in space that were not around in lower dimensions, including looking for links and knots. However, edges can be arranged in many more ways in space than on a plane, so the number of spatial embeddings to consider is larger and thus the problem much harder. The problem can be greatly simplified by only considering embeddings of graphs in a circle and redefining some key notions. This talk defines an "S1 embedding" of a graph and then looks for graphs with S1 links.

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