



Department of Mathematics and Statistics

Colloquium

Tuesday September 13

AMB 164 4:00 pm

## **The Wooly Hats**

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### **Abstract**

The Wooly Hat is a diagram: it is one particular sorta-graph that can be used to construct zillions of real graphs that cover it. Given a diagram we ask questions like: When is the covering graph connected? When is it vertex-transitive? When is it edge-transitive? This is one part of an investigation into (jargon alert) tricirculant tetravalent graphs. This investigation leads to 9 diagrams. Three of them easily lead to an infinite family of edge-transitive graphs; five of them lead easily to no nice graphs at all. Only this one is obstinate. The main part of this talk will be an introduction to how diagrams lead to big graphs and how to use them.

Refreshments at 3:45