

# VCU Discrete Mathematics Seminar

*The traveling salesman problem, 2-matchings  
and the subtour LP*

**Prof Anke van Zuylen**  
**College of William & Mary**

Tuesday, Sept. 10

1:00–1:50

4119 Harris Hall

The traveling salesman problem (TSP) is perhaps the most famous problem in combinatorial optimization: given a set of cities and the distances for traveling between each pair of cities, the goal of the problem is to find the shortest tour that visits each city at least once and returns to its starting point. In this talk, we consider the case when the distances are symmetric. We will review some of the history and results that are known about the traveling salesman problem, and we then focus on a famous open problem on the integrality gap of a linear programming relaxation called the subtour LP. This is based on joint work with Philipp Klodt, Frans Schalekamp, and David Williamson



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