

Math Coffee



Optimization and modeling in the area of aircraft design.

Darin Mohr, University of Iowa

Friday April 11th

4:00 - PIZZA in 102 Cowley

4:30 – Talk in 151 Cowley

Abstract: The designing of Unmanned Aerial Vehicles (UAVs) is a difficult and time-consuming task. Despite an abundance of good UAVs in the market, the models used for the design space exploration (considering all possible aircraft designs) are highly proprietary. We present a simplistic aerodynamic model for the design of UAVs and techniques to explore the design space. We also compare our results to that of FLOPS (Flight Optimization System), a program developed by NASA to explore the design space. The talk should be very accessible to undergraduate students. I will show how we developed our model and introduce the basics of the optimization methods we used.

The speaker will also talk about the University of Iowa graduate school program.