

Airflow Around Two Drafting Bikers Riding in Different Positions

Bob Higgins & Jess Goetz
12/7/06



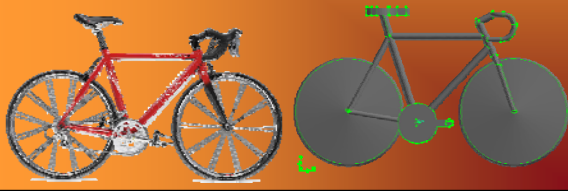
Introduction

- *Drafting* - a technique where competitors align in a close group in order to reduce the overall effect of the force that resists the movement of a solid object through a fluid
- *Paceline* - string of riders that moves at high speed with each individual taking turns setting the pace and riding in the draft of the others



Modeling Geometry

- The bike was modeled from a 56 cm Trek 1500
- Frame data from Trek website (<http://www2.trekbikes.com>) and physical measurements



Modeling Geometry

- People ride in different positions
- Anthropometry was measured from a rider sized to ride the Trek 1500
- Two rider positions modeled

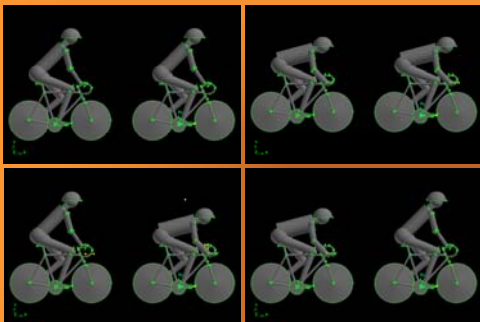


Up



Down

Modeling Geometry



Results

- Velocity Simulation

