Airflow Around Two Drafting Bikers Riding in Different Positions

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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](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

Modeling Geometry

- Velocity Simulation

Results