

## **Reversal in the Stationary Prandtl Equations**

**Nader Masmoudi, Sameer Iyer**  
New York University Abu Dhabi, UAE

We investigate reversal and recirculation for the stationary Prandtl equations. Reversal describes the solution after the Goldstein singularity, and is characterized by regions in which  $u > 0$  and  $u < 0$  respectively. The classical point of view of regarding the stationary Prandtl system as an evolution equation in  $x$  completely breaks down since  $u$  changes sign.

We will investigate the problem numerically, experimentally and analytically. In particular, we can view the problem as a quasilinear, mixed-type, free-boundary problem.