

Free Pizza and Pop

Racing the Sun Aubrey da Cunha

Abstract for 15 April 2010

Suppose you needed to drive your car from Point A to Point B as quickly as possible. Then suppose that Point B was 1800 miles away from Point A and the only way to power your car was to let the sun shine on it. Throw in a small battery, and you have the World Solar Challenge, a semiannual auto race across the Australian outback. Every two years, teams are faced with the question of "With my limited power, how fast should I drive to get there first?"

We will explore many of the considerations and some of the math behind making these sorts of tactical decisions. This is a problem in system modeling and numerical optimization. Unfortunately, due to scheduling conflicts, Halle Berry will not be able to attend.

