

On The Zermelo Navigation Problem: old and new.

T. S. Angell

Department of Mathematical Sciences

University of Delaware

Newark, Delaware 19716, U.S.A.

Abstract

For many years Zermelo's Navigation Problem, together with its variants, has served as a rich example of various problems in the Calculus of Variations and Optimal Control. We discuss a modern version of this basic problem of minimal transit time and suggest a new class of related problems. Along the way we reveal some surprising historical facts.