



THE UNIVERSITY OF TEXAS

AT AUSTIN

Department of Aerospace Engineering and
Engineering Mechanics

Orbital Mechanics Seminar

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The University of Texas at Austin

Earth to Mars Trajectories Using a Four Body Model

Numerical optimization of the actual April 2001 mission as a Four Body Problem generates a new trajectory that takes 30 days less than the minimum energy Hohmann Transfer, using the same total thrust. It's "faster and cheaper" . . . and "safer" too! The efficient construction and optimization of this solution is made possible by a unique two-body mapping. The presentation will include a new methodology for this fast mission profile as well as a short discussion of the Four Body Problem when restricted to this quasi-Hohmann transfer.

Thursday, November 2, 2000

WRW 113

3:30–5:00 p.m.

For further information please contact Cesar Ocampo,
WRW 412B, phone 471-5696