ACTIVE FLOW CONTROL FOR REDUCTION OF UNSTEADY STATOR-ROTOR INTERACTION IN A TURBOFAN SIMULATOR

Jinwei Feng

Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

> Doctor of Philosophy in Mechanical Engineering

Dr. Ricardo A. Burdisso, Chairman
Dr. Wing F. Ng
Dr. Harry H. Robertshaw
Dr. Alfred L. Wicks
Dr. Theodore S. Rappaport

October, 2000 Blacksburg, Virginia

Keywords: Active Flow Control, High Cycle Fatigue, Trailing Edge Blowing,
Aeroacoustics
Copyright 2000, Jinwei Feng