

Understanding the Aeroacoustic Radiation Sources and Mechanism in High-Speed Jets

Dissertation

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By

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Abstract

Who reads a dissertation abstract?

This work is dedicated to Science ...

Acknowledgments

I should probably acknowledge someone here . . .

Vita

September 10, 1986 Born - Plano, Texas

2009 B.S. Mechanical Engineering,
University of Texas, Austin.

2009-present Graduate Research Associate,
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Publications

Research Publications

B. Simpson “Milking a Cow”. *Journal of Dairy Science*, 00(2):277–287, Feb. 1900.

Fields of Study

Major Field: Mechanical and Aerospace Engineering

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Chapter 1: Introduction

The advent of the turbojet engine led to a transformation in both commercial and military aviation, allowing for much faster flight than previously possible with propellor-driven aircraft. However, the increased thrust of turbojets has come at great cost. Significant acoustic radiation is generated by the rotating components (compressor, turbine, fan), by the combustion process, and ultimately by the free jet itself. During takeoff and landing, when acoustic radiation is most problematic to ground crew and surrounding urban and residential areas, the dominant noise source of the jet engine is the aeroacoustic radiation generated by the high velocity engine exhaust.

Bibliography