

Tao Geng

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Education

Ph.D., North Carolina State University, Raleigh (NCSU)	Present
MSME, Indiana Univ.-Purdue Univ., Indianapolis (IUPUI)	05/2004
BSME, North China University of Technology, Beijing (NCUT)	07/1999

Related graduate courses: Gas Dynamics, Heat Transfer, Combustion, Turbomachinery, Computational Fluid Dynamics, Finite Element Analysis

Experience

Research Assistant Dept. of mechanical & aerospace engineering, NCSU Present
Duty: Numerical simulation for micro-pulsejets.

Research Assistant Dept. of mechanical engineering, IUPUI 08/2001–05/2004

Duty: The Wave Ejector Pulse Detonation Engine (PDE) performance optimization.

Accomplishments:

- Set up the Wave Ejector PDE model and parameter system
- Conduct numerical simulations using quasi-one-dimensional code
- Combine statistical Design-of-experiments method in numerical experiments
- Design and optimization of engine geometry, inlet/outlet ports, secondary bypass air duct and fuel injection process
- Improve the Wave Ejector PDE performance based on specific impulse and thrust

Mathematics Tutor Mathematics Assistance Center, IUPUI 12/2003-05/2004

- Instruct students in Algebra, Pre-Calculus, Calculus courses, and study skills

Software & Skills

CFX, Pro/E, AutoCAD, ANSYS, FORTRAN, C, MINITAB, MATLAB, M.S. Office

Membership American Institute of Aeronautics and Astronautics (AIAA) Member