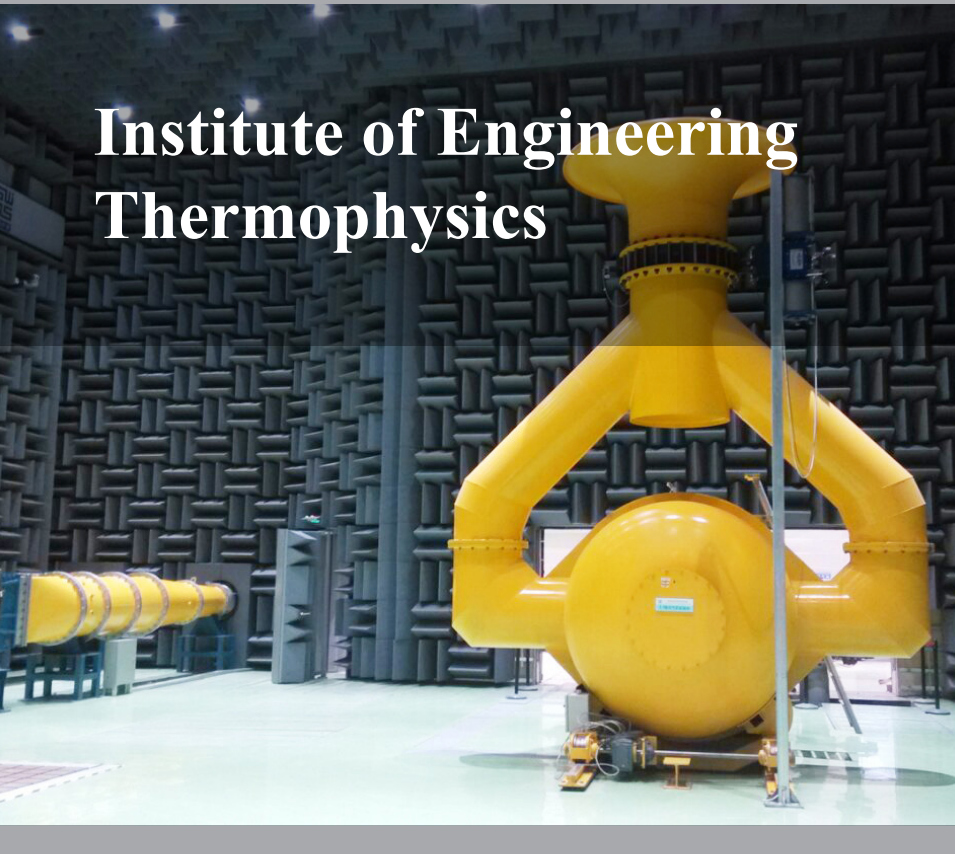




Institute of Engineering Thermophysics



1. Description

The Institute of Engineering Thermophysics (IET) at Shanghai Jiao Tong University was founded in 1950. There are currently 25 faculty members at IET, including an academican of the Chinese Academy of Science, 11 professors, 12 associate professors and 2 assistant professors. IET faculty are actively engaged in a wide range of research activities related to microfluidics and thermal control, aerodynamics and heat transfer in aircraft engines, nanoscale thermal radiation, porous media heat transfer and thermal storage, and advanced aerospace propulsion. The researches in IET are heavily supported by major national funding agencies and renowned enterprises. IET is one of the top Chinese research centers for thermofluids and heat transfer.

2. Key Research Fields

- Heat transfer and fluid flow in micro-/nano-systems
- Nanoscale thermal radiation
- Aerothermal dynamics and aeroacoustics in turbines
- Phase-change heat transfer in porous medium
- Latent heat and thermochemical heat storage
- Measurements and simulations on advanced electric propulsion systems
- Aerodynamic heating and thermal protection of aircrafts
- Liquid-gas two-phase flow and boiling heat transfer

3. Labs, Centers and Groups

- Microfluidics and thermal control lab
- Aerodynamics and heat transfer in aircraft engines lab
- Nanoscale thermal radiation lab
- Porous media heat transfer and thermal storage lab
- Advanced aerospace propulsion lab

4. Instrumentation & Facilities

- Scanning near-field optical microscopy (Bruker anasys nanoIR2-s)
- Bidirectional reflectance/transmittance distribution spectrometer
- UV-Vis spectrometer (PerkinElmer Lambda 750)
- Fourier transform infrared (FTIR, PerkinElmer frontier)
- CCD high speed cameras (X-stream TM XS-4, motion pro Y4-S3)
- Infrared thermometer (VZ11-0910)
- Micro particle image velocimetry (nano L135-15PIV)
- 400m² anechoic chamber
- 3.5 stages axial compressor testing system
- Blade tip timing measurement system
- Stereoscopic shadowgraph/schlieren system

5. Website

<http://iet.sjtu.edu.cn/>

6. Director

Director: Prof. ZHAO Changying
Email: changying.zhao@sjtu.edu.cn

