

**Name:** QIAN Zhansen  
**Nationality:** China

**Sex:** Male  
**Place of Birth:** China

**Position:** Research Professor

**Work Unit:** CAE Aerodynamics Research Institute

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### **Career Details:**

- 2019-** Research Professor, AVIC Aerodynamics Research Institute  
**2014-2018** Senior engineer, Department of Aerodynamics Development, AVIC Aerodynamics Research Institute  
**2011-2013** Engineer, Department of Aerodynamics Development, AVIC Aerodynamics Research Institute

### **Researches:**

1. High Mach Number Aerodynamics
  - High speed transport vehicle design;
  - Drag reduction methods;
  - Sonic boom prediction and attenuation.
2. Highly-Efficient, High Resolution Algorithms for Compressible Flow Simulation
  - Large time step Godunov schemes;
  - Large time step TVD schemes;
  - High-order numerical schemes, such as WENO, DG, et al.
3. Turbulences Flow Simulation
  - Hybrid LES/RANS model for complex flows;
  - Transition model for boundary layer.

### **Publications:**

- 1 Wang Di, **Qian Zhansen**, Leng Yan. High-order scheme discretization of the sonic boom propagation model based on augmented Burgers equation. Acta Aeronautica et Astronautica Sinica, 2021, 24916. (in Chinese)
- 2 Liu Yuan, **Qian Zhansen**, Lu Wenbo, He Shuai. Numerical investigation on the safe stage-separation mode for a TSTO vehicle. Aerospace Science and Technology, 2020, 107: 106349.
- 3 **Qian Zhansen**. Research progress of Godunov type explicit large time step scheme. Acta Aeronautica et Astronautica Sinica, 2022, 23575, 24916. (in Chinese)
- 4 Liu Yuan, Wang Lu, **Qian Zhansen**. Numerical investigation on the assistant

restarting method of variable geometry for high Mach number inlet. *Aerospace Science and Technology*, 79: 647-657, 2018.

- 5 **Qian Zhansen**, Lee Chun-Hian. On large time step TVD scheme for hyperbolic conservation laws and its efficiency evaluation. *Journal of Computational Physics*, 2012, 231(21): 7415-7430.
- 6 **Qian Zhansen**, Lee Chun-Hian. A class of large time step Godunov schemes for hyperbolic conservation laws and applications. *Journal of Computational Physics*, 2011, 230(19): 7418-7440.

### **Scientific and Advisory Committee**

Executive Member of China Aerodynamics Society (CAS)

Member of Academic Committee of the National Computational Fluid Dynamics Conference of China