

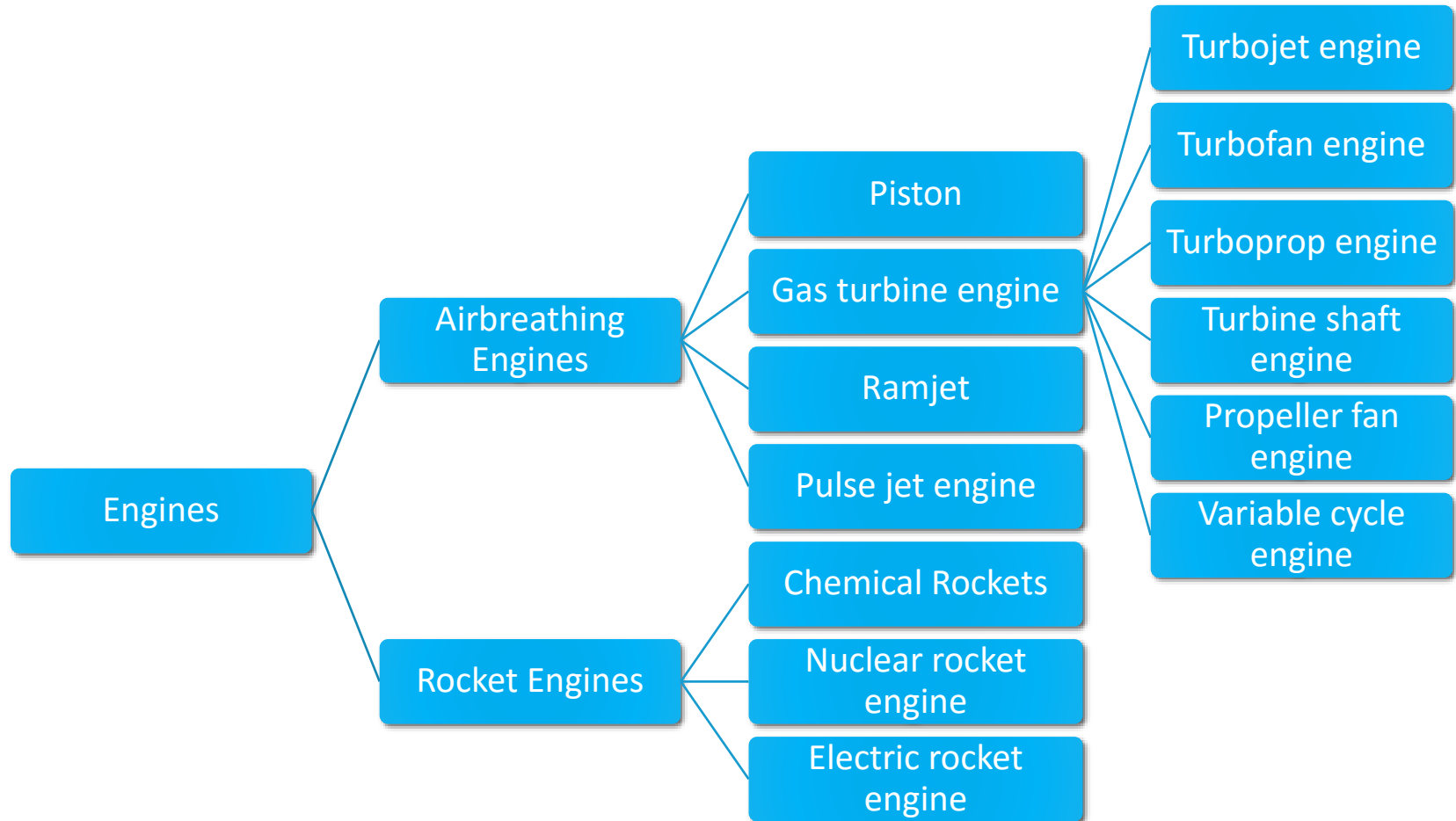
PS41 Propulsion – Chapter 0

Introduction

DENG TIAN

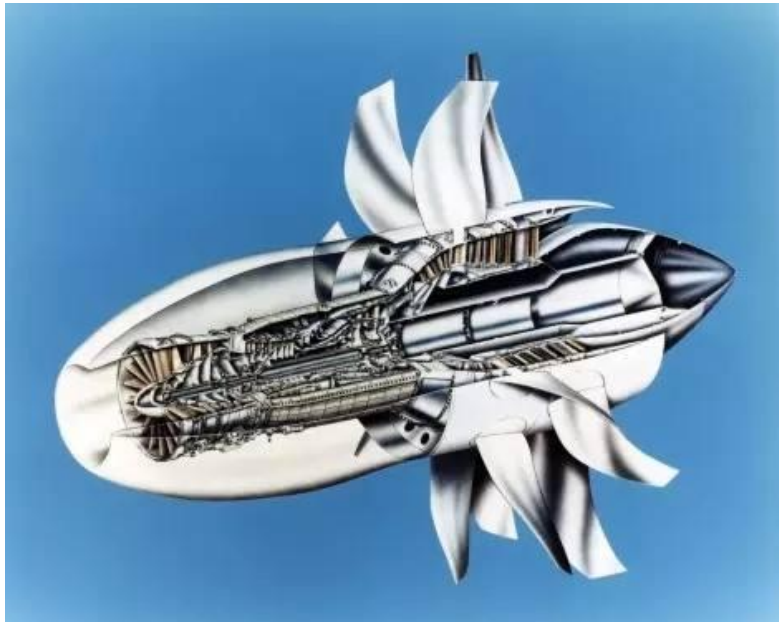
SINO-EUROPEAN INSTITUTE OF AVIATION ENGINEERING

1 Types of engines



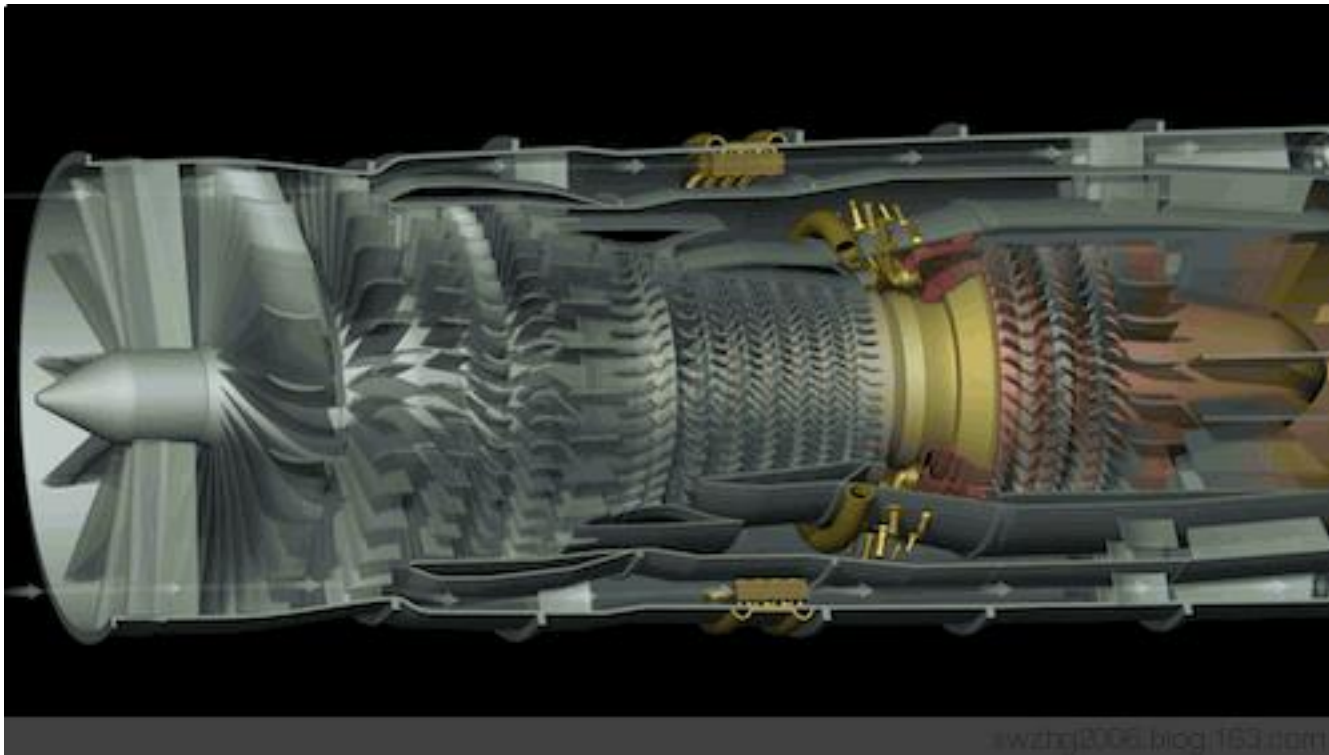
1 Types of engines

Propeller fan engine



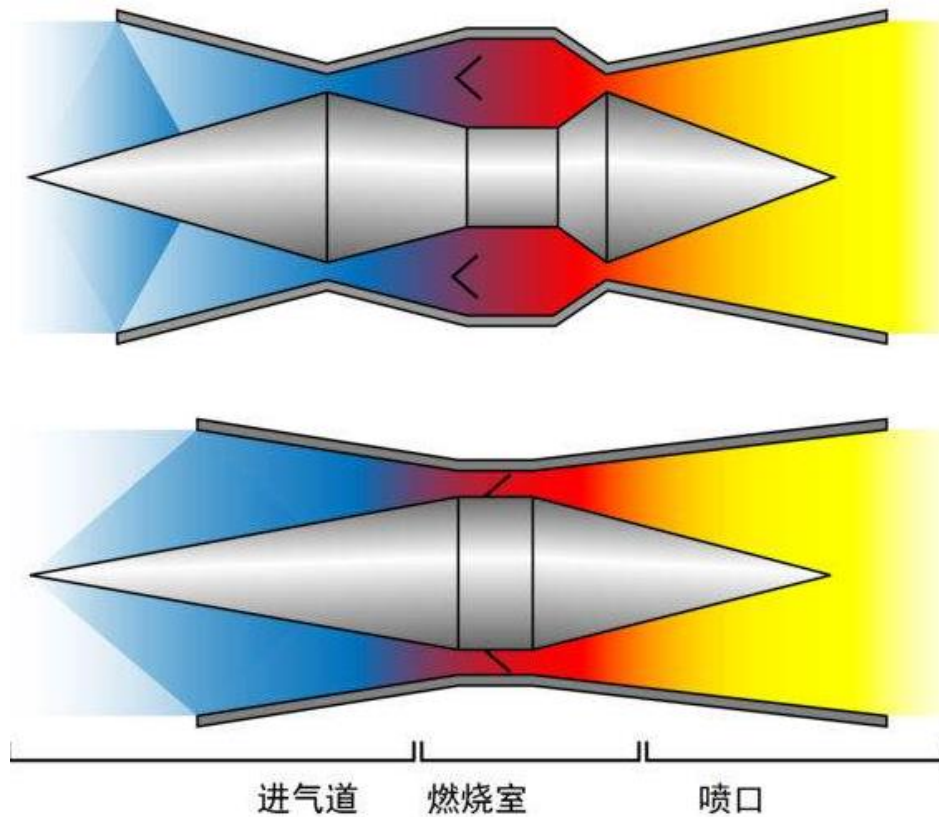
1 Types of engines

Variable cycle engine



1 Types of engines

Ramjet



Contents of <PS41>

- Basic concepts of thermodynamics and energy
- Chemical reactions
- Rocket propulsion (thrust, nozzle ...)
- Aircraft gas turbine engine (thrust, performance, ...)
- Component performance
- Parametric cycle analysis of ideal engines

Reference

- Pascal BAUER, *Propulseurs aéronautiques et spatiaux*, Ellipses Édition Marketing S.A., Paris, France, 2009
- Jack D. Mattingly, *Elements of Propulsion: Gas Turbines and Rockets*, AIAA, Virginia, USA, 2006
- Farokhi Saeed, *Aircraft Propulsion*, John Wiley & Sons, Inc., Hoboken, USA, 2008