

Trusted by NASA, ESA, JAXA, & other leading organizations in space research and technology development

Thermal Fluid System Design:

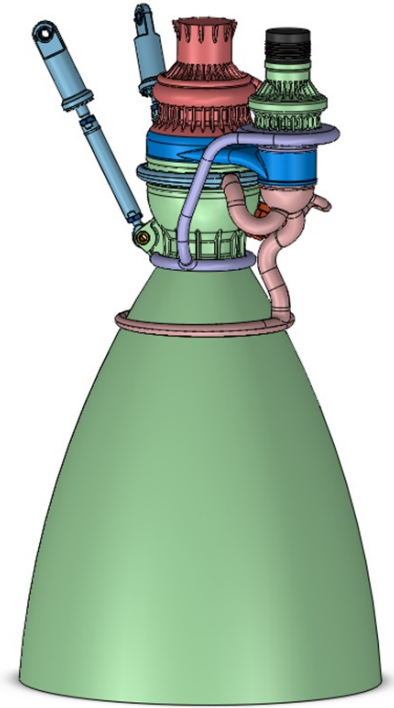
- Rocket Engine Layout – Cycle Calculation
- Nozzle Design & Cooling
- Turbopump Secondary Flow Systems
- Propellant Pipelines

Generative Turbomachinery Design & Analysis:

- Oxidizer & Fuel Pump Design & Analysis
- Subsonic and Supersonic Turbine Design & Analysis (including various types of converging-diverging nozzles)
- Rotor Dynamics, FEA & CFD

Co-simulation, Automation & Optimization:

- Automatic Design & Analysis of Systems & Components
- Perform Design Exploration & DOE Optimization
- Integrate AxSTREAM.SPACE into Existing CAE Stack



Key Advantages of AxSTREAM.SPACE

- Couple 0D-1D modelling of propulsion & auxiliary systems, including lubrication, secondary flows, & nozzle cooling to determine performance, hydraulic resistance & heat transfer all in one model
- Integrate system & component-level modeling to perform holistic design, analysis, and optimization
- Explore axial & radial configurations at design & off-design conditions through generative design
- Perform the full range of rotordynamics & bearing analysis with ability to import turbomachinery flow path, reducing model preparation time
- Validate and generate new design concepts through automation & co-simulation
- Create your own scripts defining physics & functionality which can be deployed in user design practice.
- Seamlessly integrate workflow with CAD, PLM, & other commercial CAE tools
- Create a digital twin of your system to study how it will perform holistically in the real world

Industry Trusted

