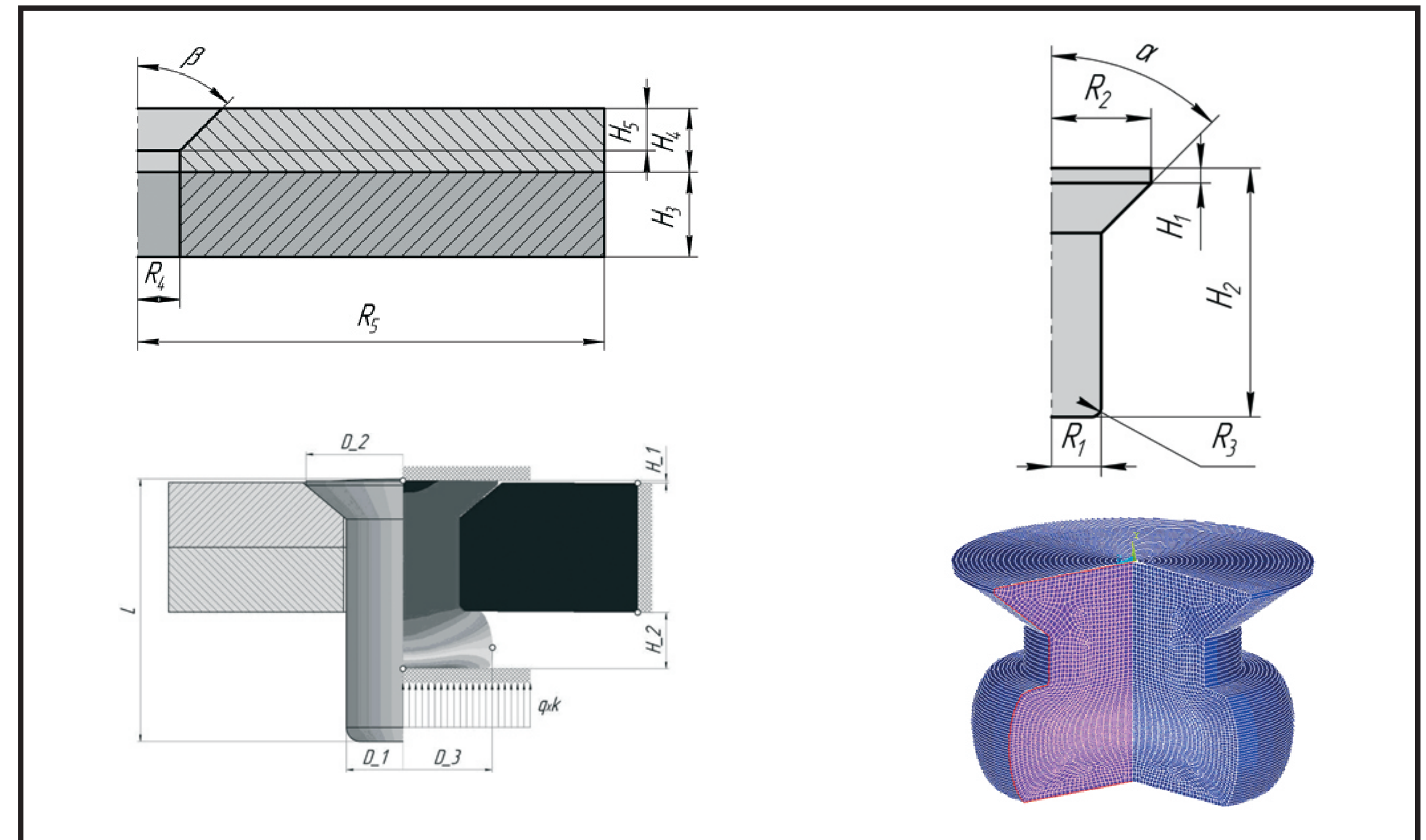


Optimization of a Riveting Process for Reconfigurable Assembly

Pechenizkiy Ivan

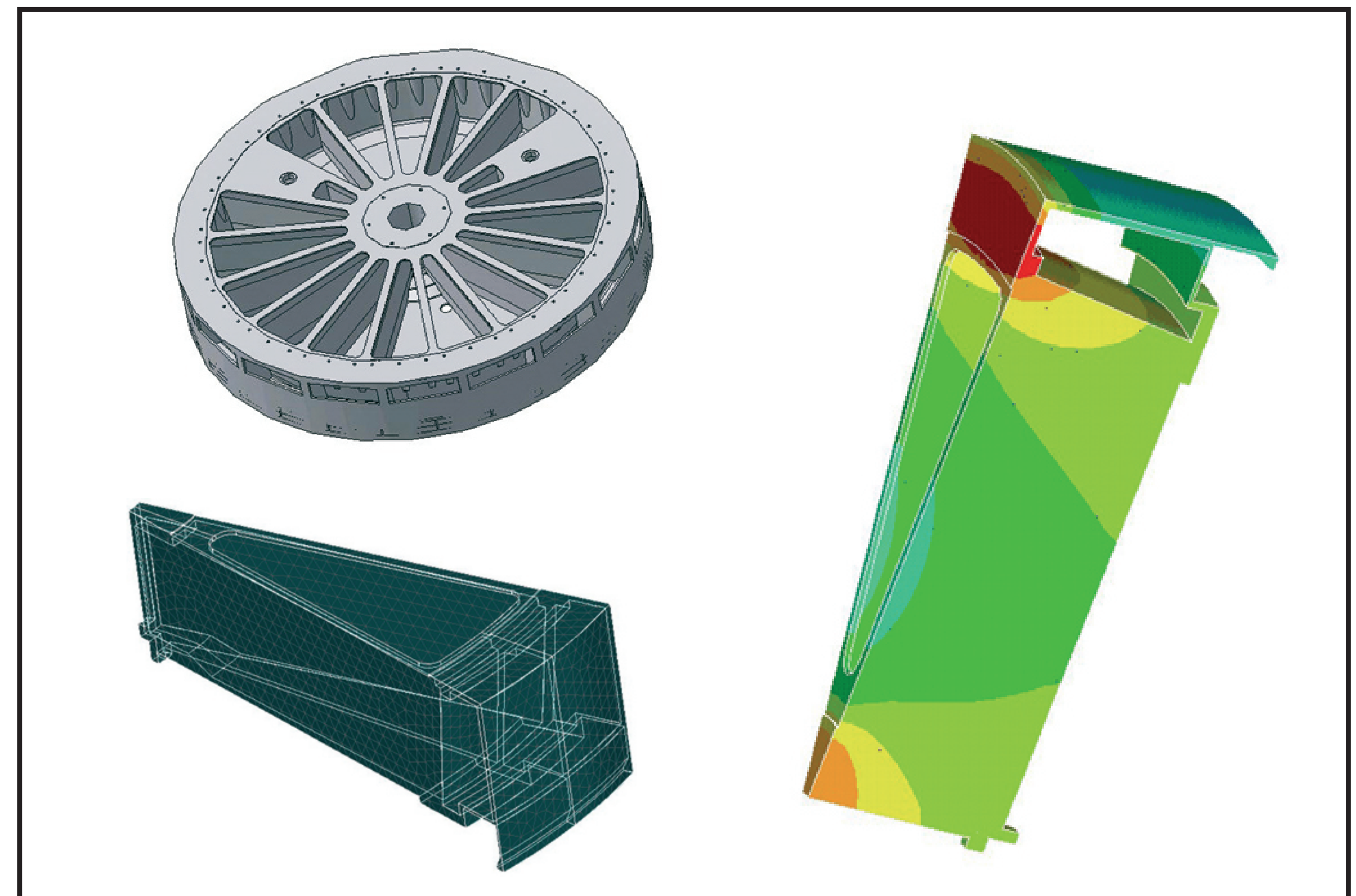
- Al-alloy system of thin plates and high-resourced rivet loaded by constant force
- Collection and processing of the geometric and mechanical parameters of the technological process
- Creation of 2-D axisymmetrical/ 3-D full FEM model
- Providing of numerical experiment (5 Par., 1 Crit.)
- Definition of optimal main force value
- Increased joint quality, decreased costs



Optimization of Frame Geometry under Unstable Thermal Loading

Budza Switlana

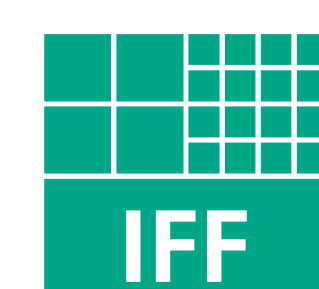
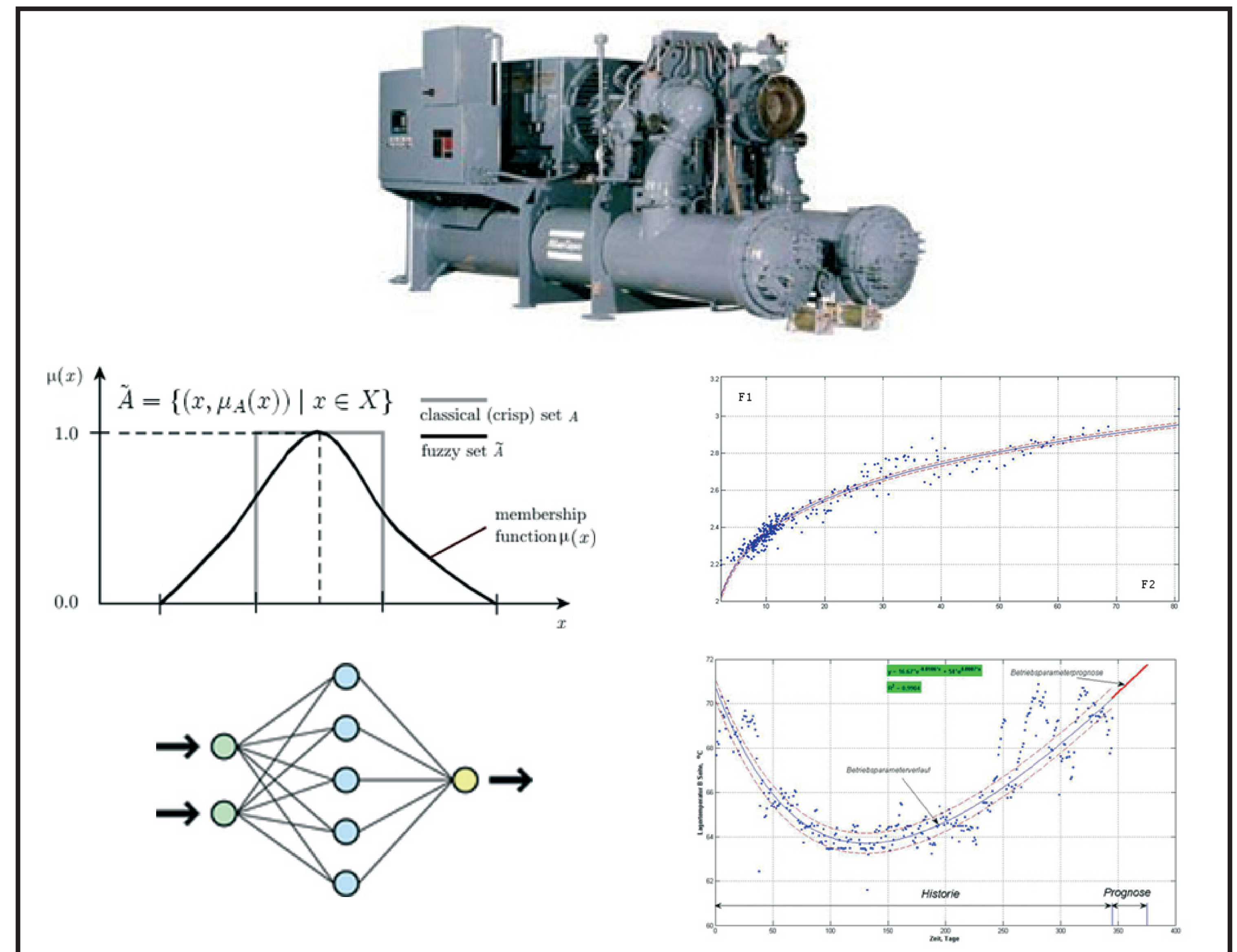
- Large diameter ribbed steel plate with central opening loaded by heat flow of unstable intensity
- Collection and processing of the geometric and thermophysical parameters of the frame heating process
- Creation of 3-D cyclic-symmetrical FEM model
- Providing of numerical experiment (3 Par., 3 Crit.)
- Definition of optimal thickness, diameter and length
- Increased frame strength, decreased costs



Methods of Data Acquisition for Reliability Forecasting of Technical Systems

Kolomiichuk Sergii

- Turbo-compressor (27.5 bar, 12000 l/s) H-series
- Collection and primary processing of working data
- Main processing of statistical data: correlation analysis, fuzzy logic
- Definition of forecast function: regression analysis
- Definition of real system's operational life
- Increased operational life of the system, decreased operating expenses



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