

Practical challenges

- Reduce noise of the machine
- Predict life of the structures
- Make cooling and ventilation effective
- Defrost windshield in the winter

Theoretical tools

- Continuum mechanics of solids and fluids
- Theory of phase transitions
- Partial differential equations

Methods and goals

- Construction of mathematical models
- Theoretical analysis of the equations
- Numerical methods and software
- Comparison with real data



Benefits

Solving real world problems

New directions for theoretical research