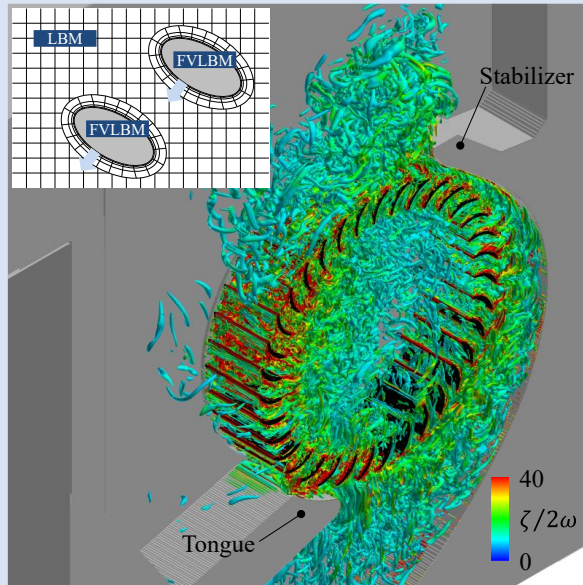


– Toward the realization of low-noise fluid machinery and advanced sensing technologies –

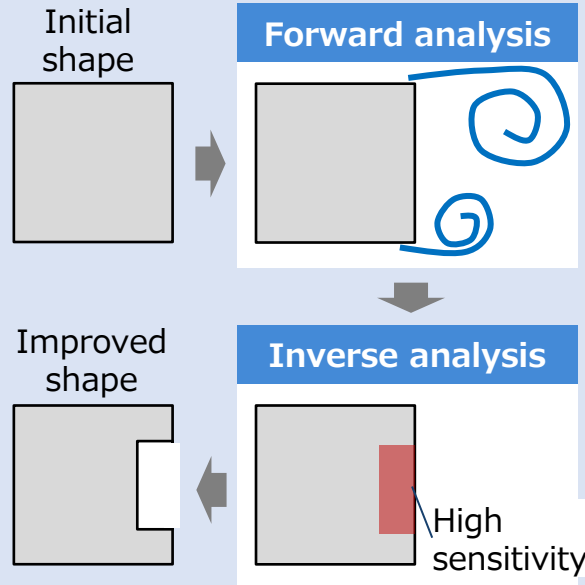
1. Elucidation of the mechanisms of aerodynamic noise generation through large-scale numerical simulations using supercomputers
2. Development of innovative aerodynamic design methods for controlling unsteady flows and aerodynamic noise
3. Development of machine learning and inverse analysis techniques for reconstructing internal flow fields from acoustic signal

## Simulation



Flow-acoustic coupling

## Control



Optimization based on inverse analysis

## Sensing

