

# Dynamics and stability in Reversible pump turbines



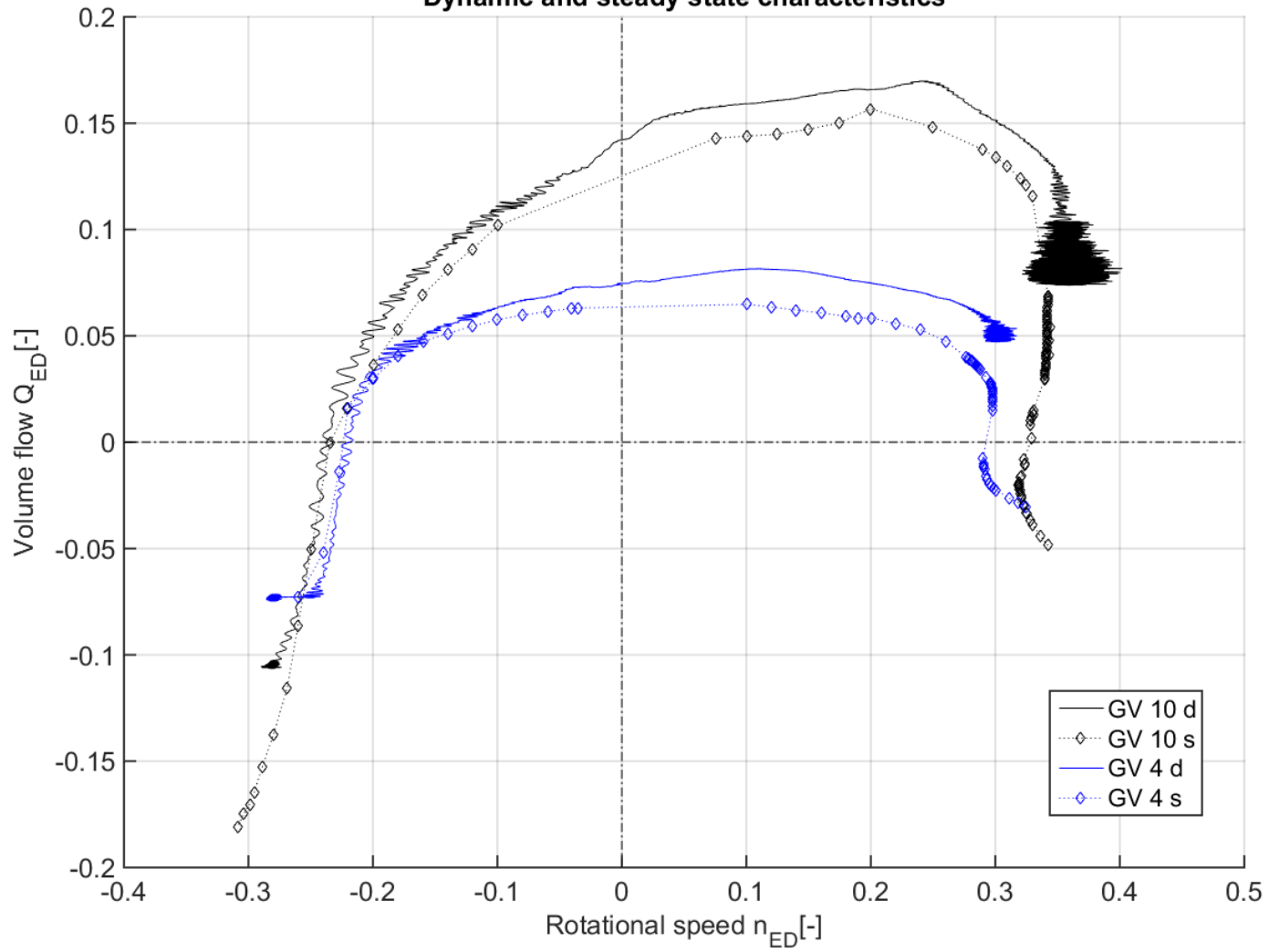
Magni Fjørtoft Svarstad



# The reversible pump turbine (RPT)

- Two operational modes
- Mode change
- Fast mode change
- Model test of transition

### Dynamic and steady state characteristics



# Further work and implementation

- Simulation
- Power plant measurements
- New operation of RPT

QUESTIONS?