RoBuT

(Rotatable Buoyancy Tunnel)

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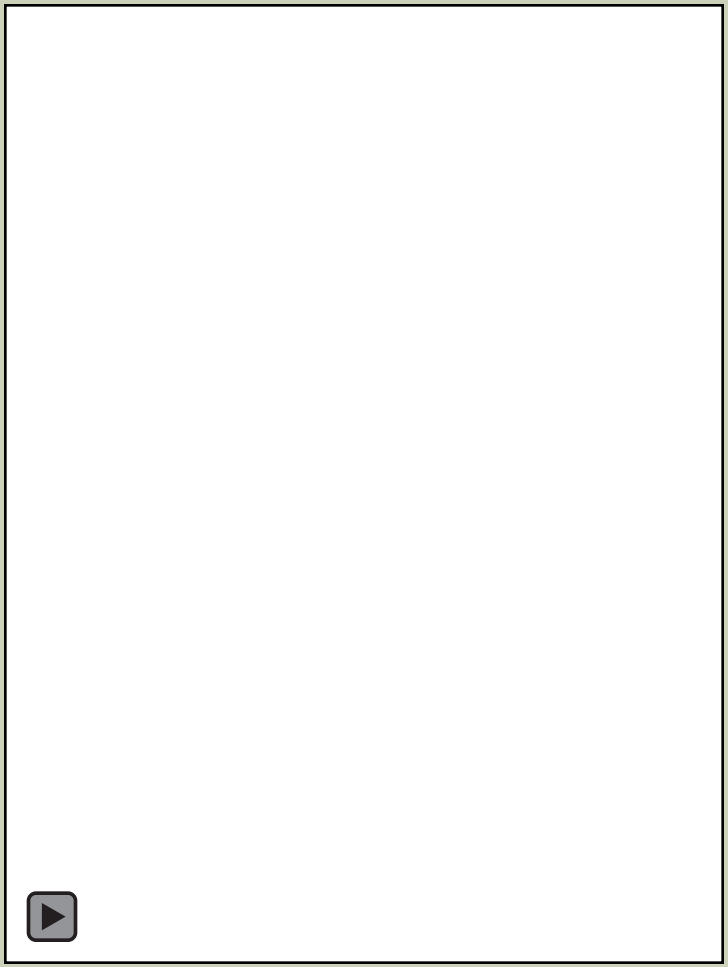
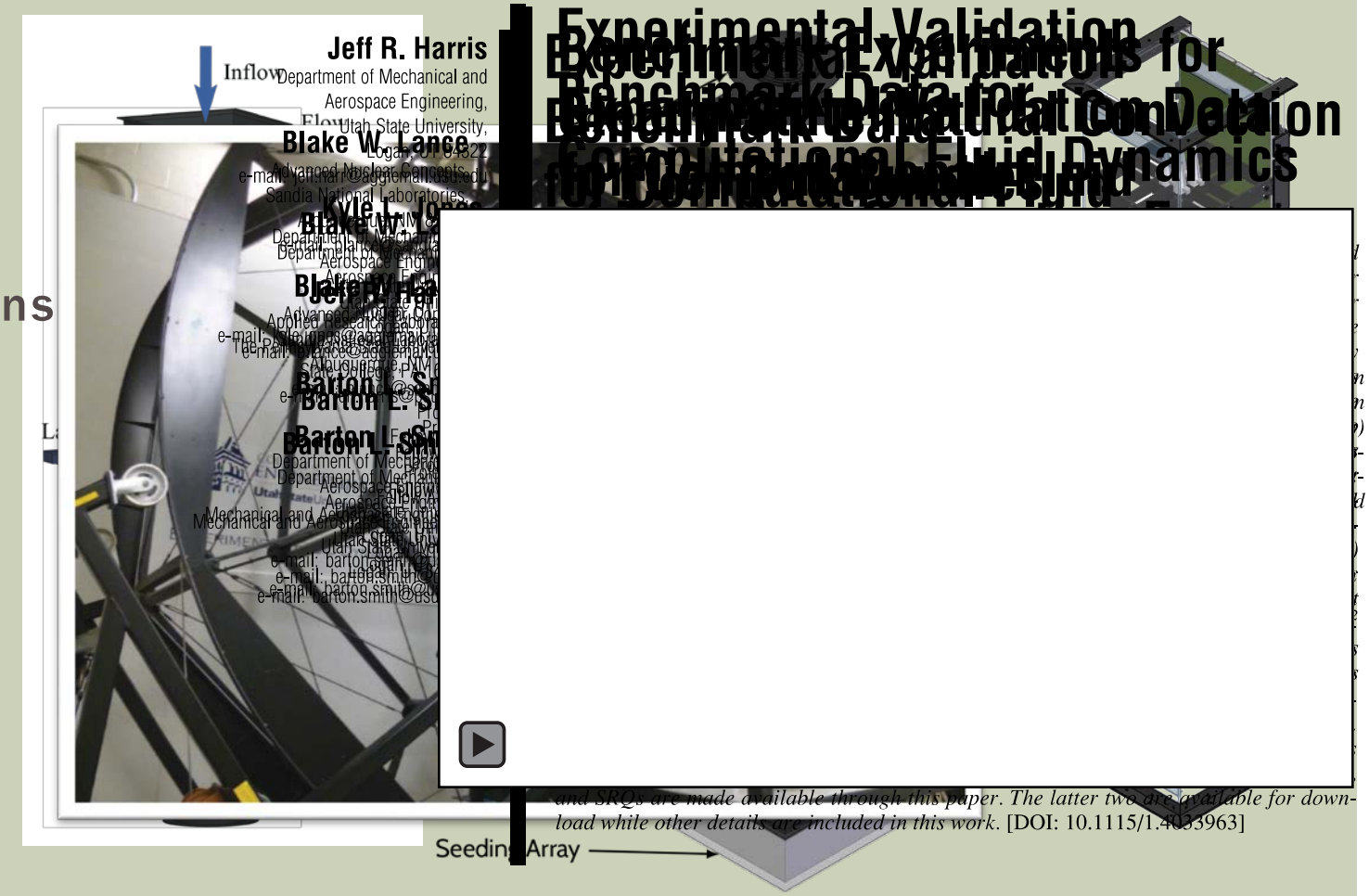
RoBuT Purpose/Capabilities

- Measurements in gas (air)
- Buoyancy Aided or Opposed
- BC/Inflow Measurements
- Unobtrusive Measurements
  - PIV (gas velocities)
  - Thermography (gas temperature)
  - Wall temperature and pressure
- EFDL Validation Benchmark Data Expertise
  - 4 published journal articles
  - SRQ and BC data all available to public



Previous Work

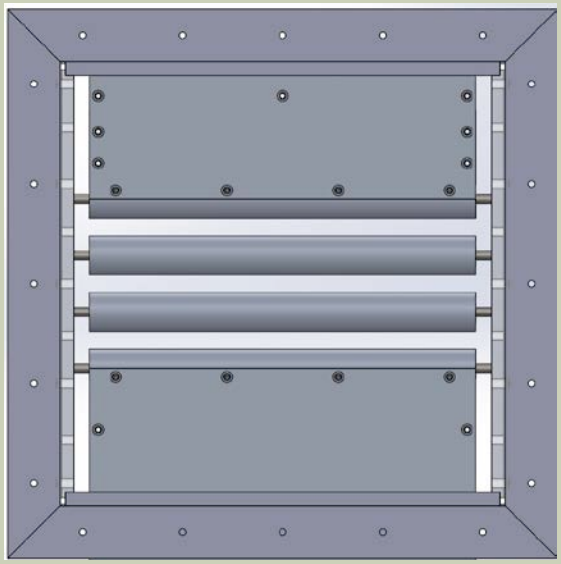
- Forced
- Mixed
- Transient
- Fuel Rods
- Publications

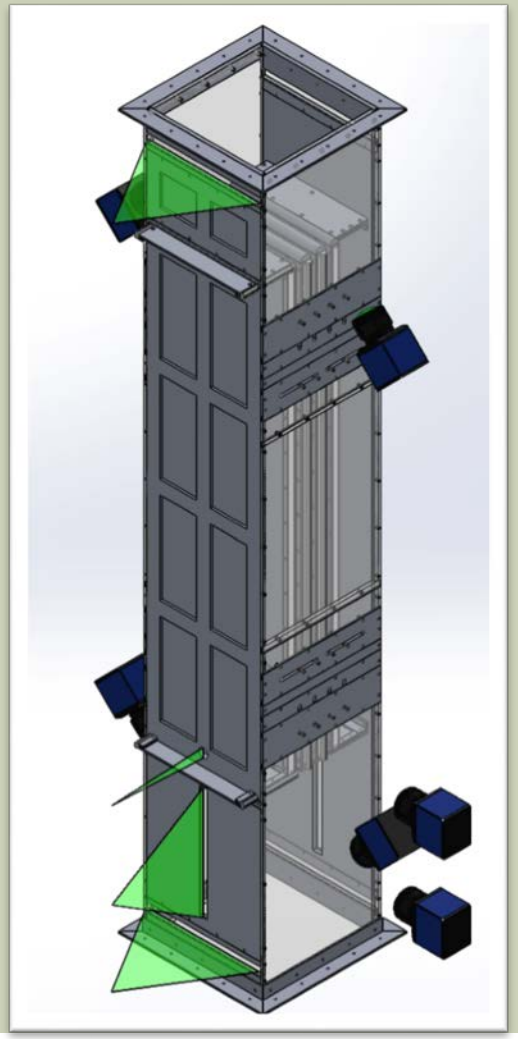


and SRQs are made available through this paper. The latter two are available for download while other details are included in this work. [DOI: 10.1115/1.4033963]

Future Work

- Parallel Channels
- Increasing viscosity with temperature causes instabilities
- Introducing gas temperature measurements





How to Use RoBuT

- Currently starting year 2 of 3-year project
- Tunnel is 50% available
- All work to date has been through direct collaboration
- We are interested in other users
- Contact Barton Smith at barton.smith@usu.edu