



FLUID MECHANICS LABORATORY (SINCE OCT. 2022)

Faculty of Aerospace Engineering, Technion

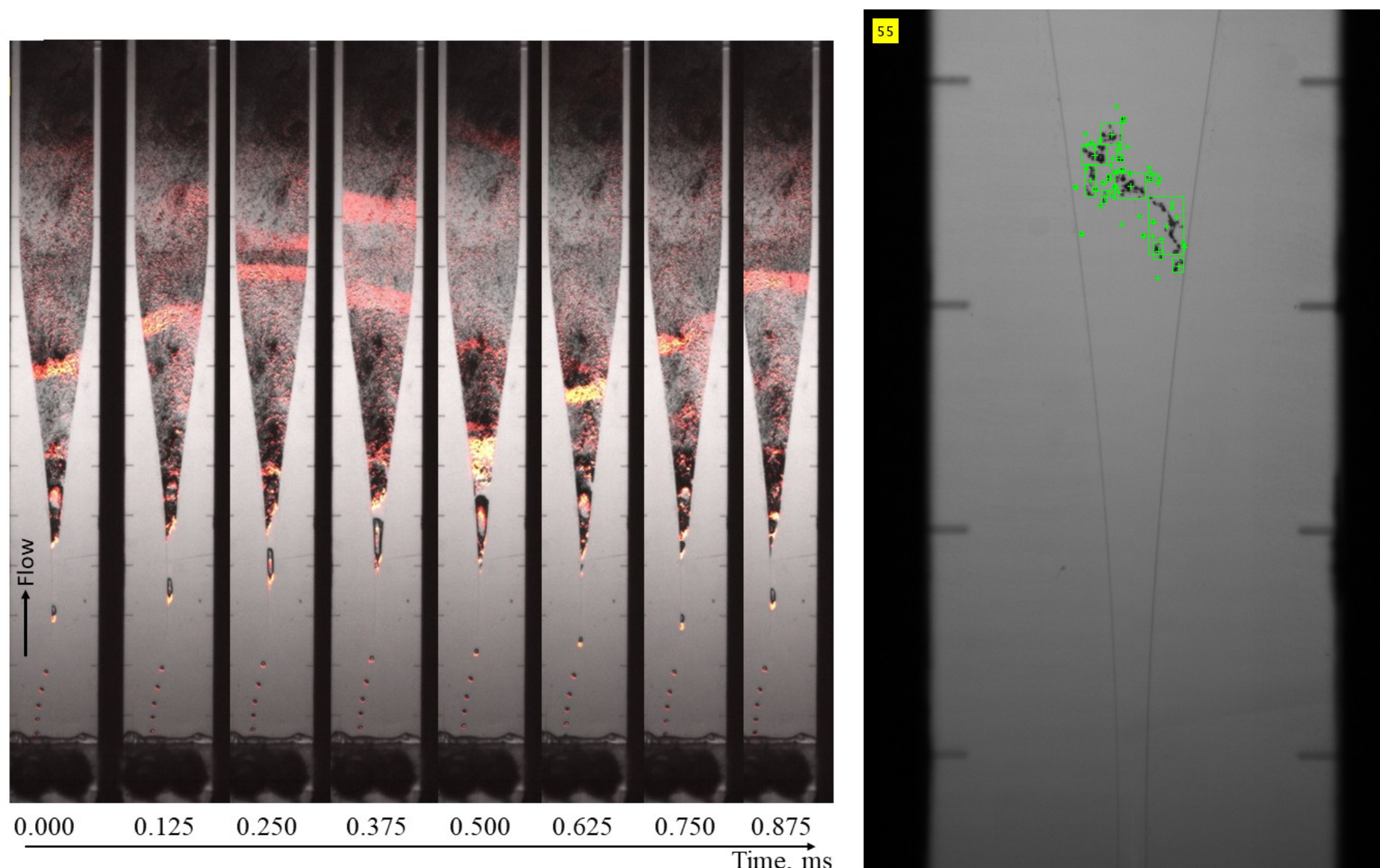
Positions available

Multiple research topics (including undergraduate projects) are available for motivated undergrad, M.Sc., and Ph.D. students in doing exciting research on experimental and theoretical fluid mechanics that combines interdisciplinary approaches from dynamical systems, advanced signal processing, computer vision tools, and estimation theory.

For more information, please contact Asst. Prof. Igal Gluzman
igal.gluzman@technion.ac.il

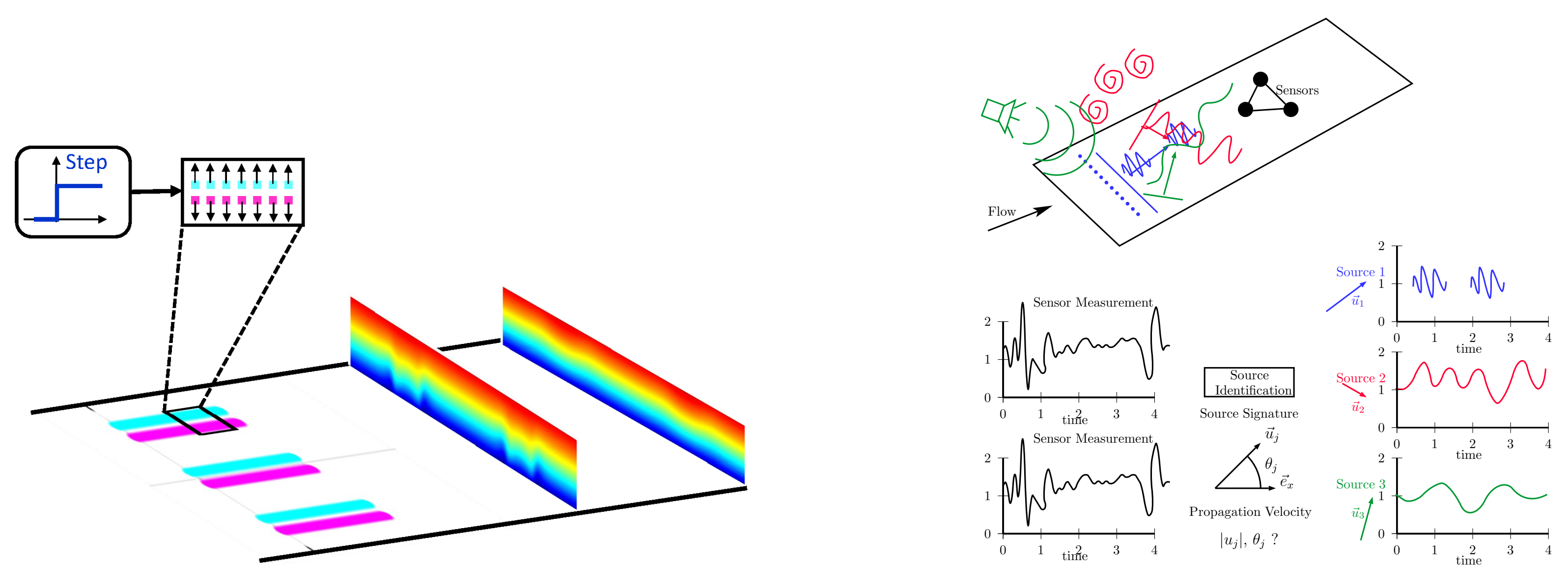
Cavitation and bubble dynamics

- Bubble dynamics of non-spherical cavities.
- Shock wave emission in cavitating liquids.
- Fuel cavitation modeling.



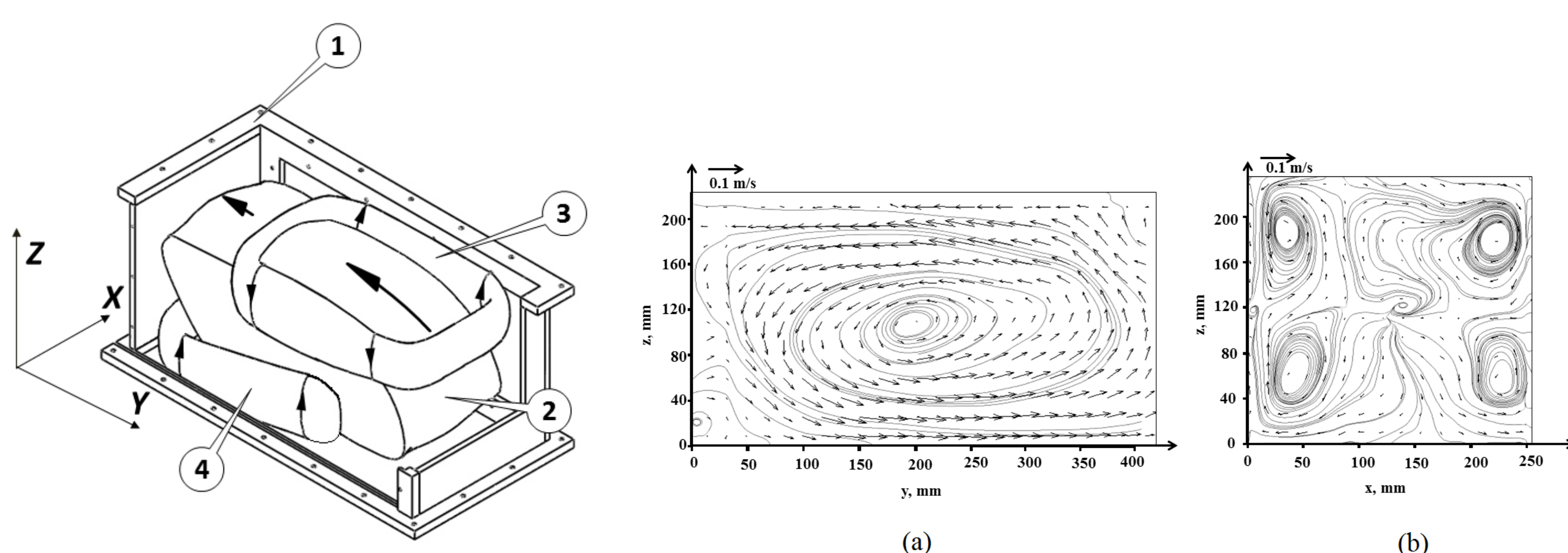
Transitional and turbulent boundary layers

- Modeling of actuation in transitional flows.
- Model-driven active flow control.
- Blind disturbance separation in late stages of transition.



Stratified turbulence

- Control of nonlinear oscillations in stratified turbulence.
- Wavy surface effect on helicity in Rayleigh-Bénard cell.



Flow visualization and diagnostic techniques development

- 3D flow visualizations via photogrammetry.
- Computer vision for tracking bubbles and shocks.

