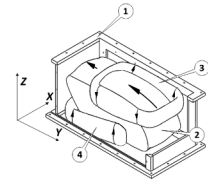
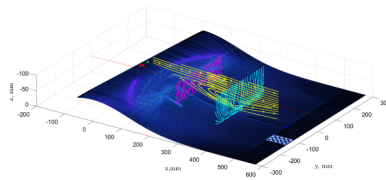
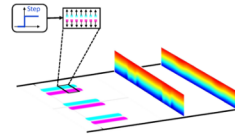
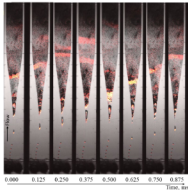




Graduate Student (M.Sc., and Ph.D.) Positions at FMLab

Multiple research topics (including undergraduate projects) are available for motivated undergraduate, M.Sc., and Ph.D. students.



The positions are available in the following areas (and additional related directions):

1. Cavitation and bubble dynamics

- Cavitation of aviation fuels (multi-component liquids)
- Non-spherical bubble dynamics and coupled interactions with pressure waves
- Sound Suppression Water System for Spacecraft Launchpad

2. Transitional and turbulent boundary layers

- Flow Control
- Reduced order modeling of actuated flow fields
- Flow field estimation from minimal sensing (Utilization of Blind Source Separation (BSS) methods and estimation theory)
- Actuator developments (plasma actuators, shape morphing actuators with ferrofluids)

3. Stratified turbulence

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

4. Flow separation topology

5. Flow visualization and diagnostic techniques development

- Computer Vision tool for tracking non-spherical cavities
- Enhanced Gradient shadowgraphy for shock wave tracking
- Photogrammetry and 3D flow mapping over complex geometries: surface oil visualizations coupled with stereo PIV imaging
- Oil Film Interferometry
- MRI (extraction of 3D internal flow fields from MRI imaging)

Take a look at different ongoing activities on the FMLab website and feel free to reach out. For more information, please contact Asst. Prof. Igal Gluzman (igoal.gluzman@technion.ac.il)

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