Dr. Michael Karp received all of his degrees from the Faculty of Aerospace Engineering, Technion.

His dissertation combined analytical and numerical methods for understanding transition in wall-bounded shear flows.

His research interests include Aerodynamics, Fluid Mechanics, Flow Instabilities, Transition to turbulence, Flow Control and Flight Mechanics.

**Publications**

- **Transition to turbulence over convex surfaces** *Journal of Fluid Mechanics*
  Karp, M., Hack, M.
  2018; 855: 1208–37

- **Evolution of finite-amplitude localized vortices in planar homogeneous shear flows** *Physical Review Fluids*
  Karp, M., Shukhman, I. G., Cohen, J.
  2017; 2 (2)

- **On the secondary instabilities of transient growth in Couette flow** *Journal of Fluid Mechanics*
  Karp, M., Cohen, J.
  2017; 813: 528-557

- **Subcritical transition in plane Poiseuille flow as a linear instability process** *Physics of Fluids*
  Roizner, F., Karp, M., Cohen, J.
  2016; 28 (5)

- **Streak instability and generation of hairpin-vortices by a slotted jet in channel crossflow: Experiments and linear stability analysis** *Physics of Fluids*
  Philip, J., Karp, M., Cohen, J.
  2016; 28 (1)

- **Tracking stages of transition in Couette flow analytically** *Journal of Fluid Mechanics*
  Karp, M., Cohen, J.
  2014; 748: 896-931

- **A minimal flow-elements model for the generation of packets of hairpin vortices in shear flows** *Journal of Fluid Mechanics*
  Cohen, J., Karp, M., Mehta, V.
  2014; 747: 30-43

- **An analytical-based method for studying the nonlinear evolution of localized vortices in planar homogenous shear flows** *Journal of Computational Physics*
  Cohen, J., Shukhman, I. G., Karp, M., Philip, J.
  2010; 229 (20): 7765-7773