### Rotation of buckled gel.mpg:

A three-dimensional reconstruction of a surface-confined gel in the bulk buckled state.

#### **Buckle formation from below.mpg:**

A three-dimensional reconstruction of a series of high aspect ratio microbeams transitioning from the collapsed state to a bulk buckled swollen state viewed from below the surface.

### Swelling of differential lateral swelling beams.mpg:

A three-dimensional reconstruction of a series of low aspect ratio microbeams transitioning from a collapsed state to a swollen state giving rise to differential lateral swelling.

### **Edge buckle formation.mpg:**

A three-dimensional reconstruction of the formation of localized edge buckling as the microbeam transitions from the collapsed state to the swollen state.

# **Bulk buckle formation.mpg:**

A three-dimensional reconstruction of a series of high aspect ratio microbeams transitioning from the collapsed state to a swollen state which gives rise to a bulk buckling instability

## Rotation of differential lateral swelling beams.mpg:

A three-dimensional reconstruction of two adjacent, low aspect ratio, microbeams in the swollen state forming an enclosed microchannel due to differential lateral swelling.