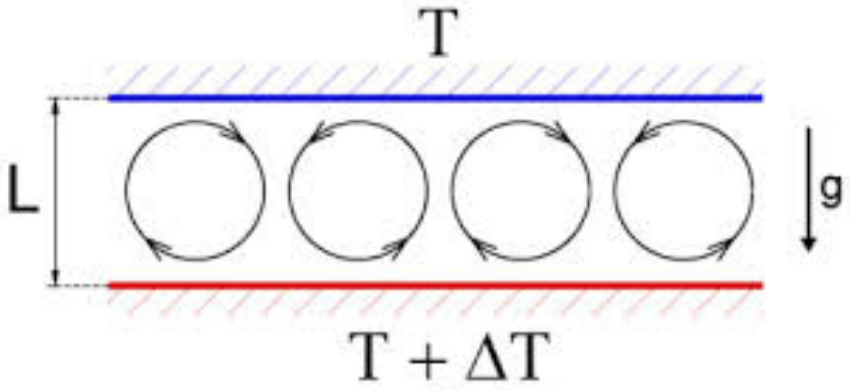
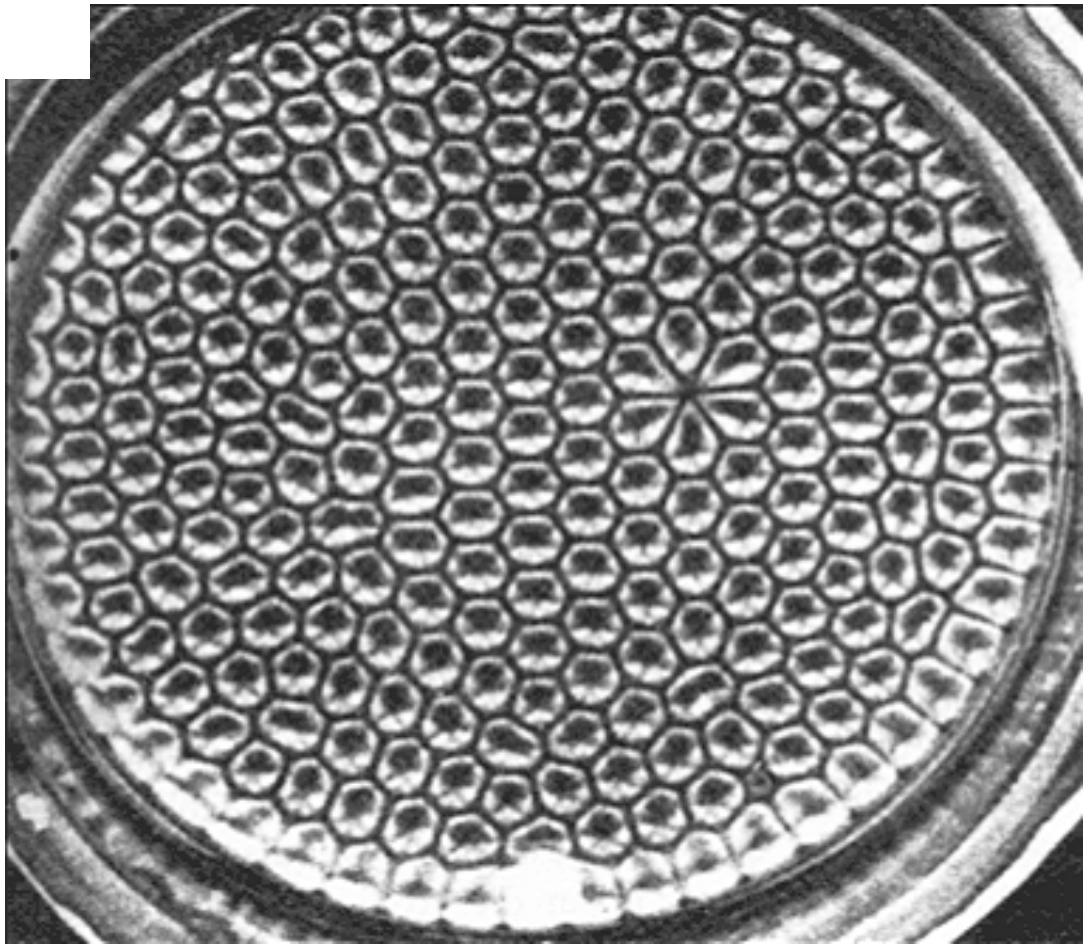
centrifugal convection

Rayleigh-Benard convection

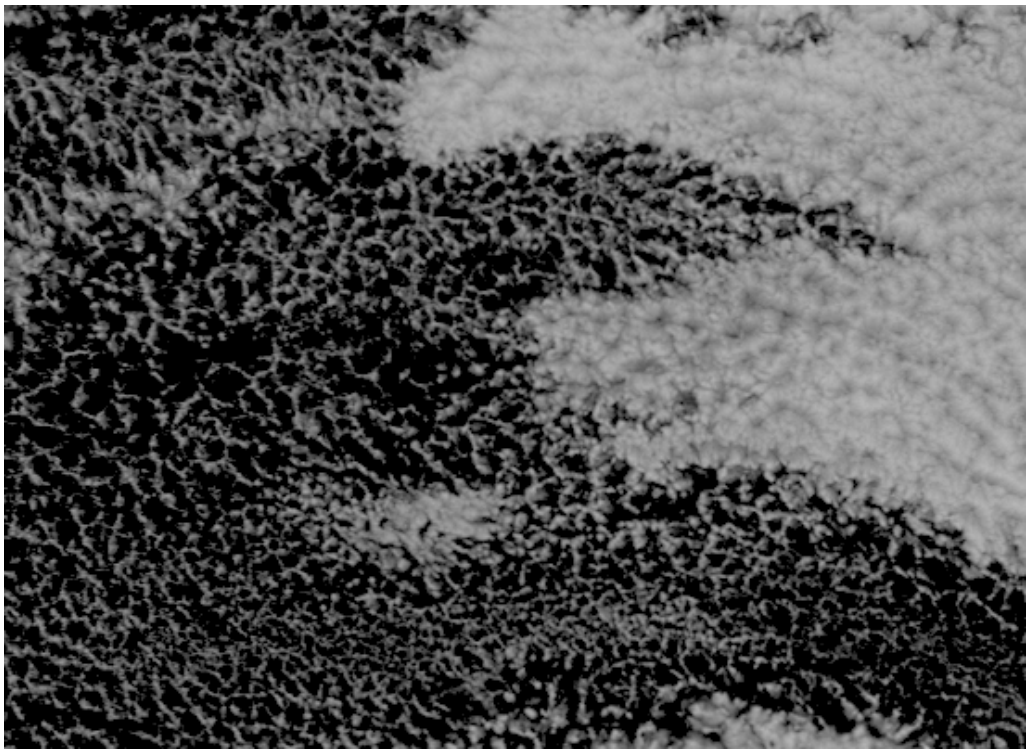


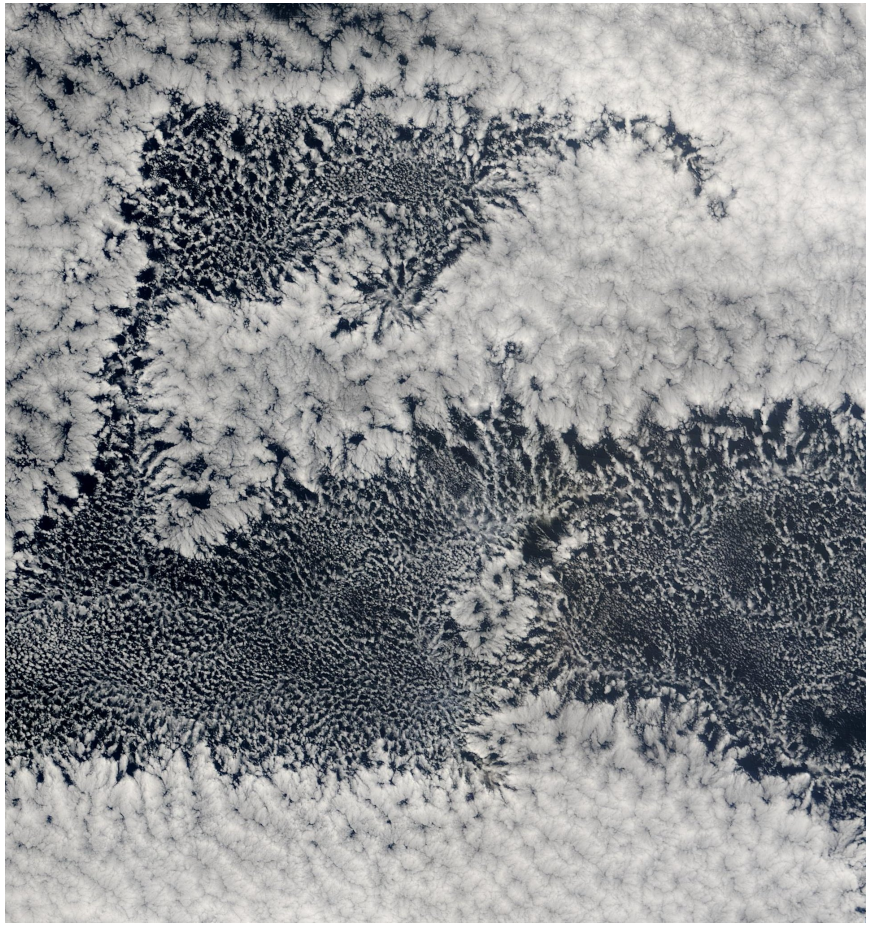


Rayleigh-Benard convection

Gold paint dissolved in acetone. Put it in a shallow dish. Cover it so that the acetone does not evaporate. Let stabilise and then remove the cover. Evaporation of the acetone causes the top layer to cool thus starting convection.

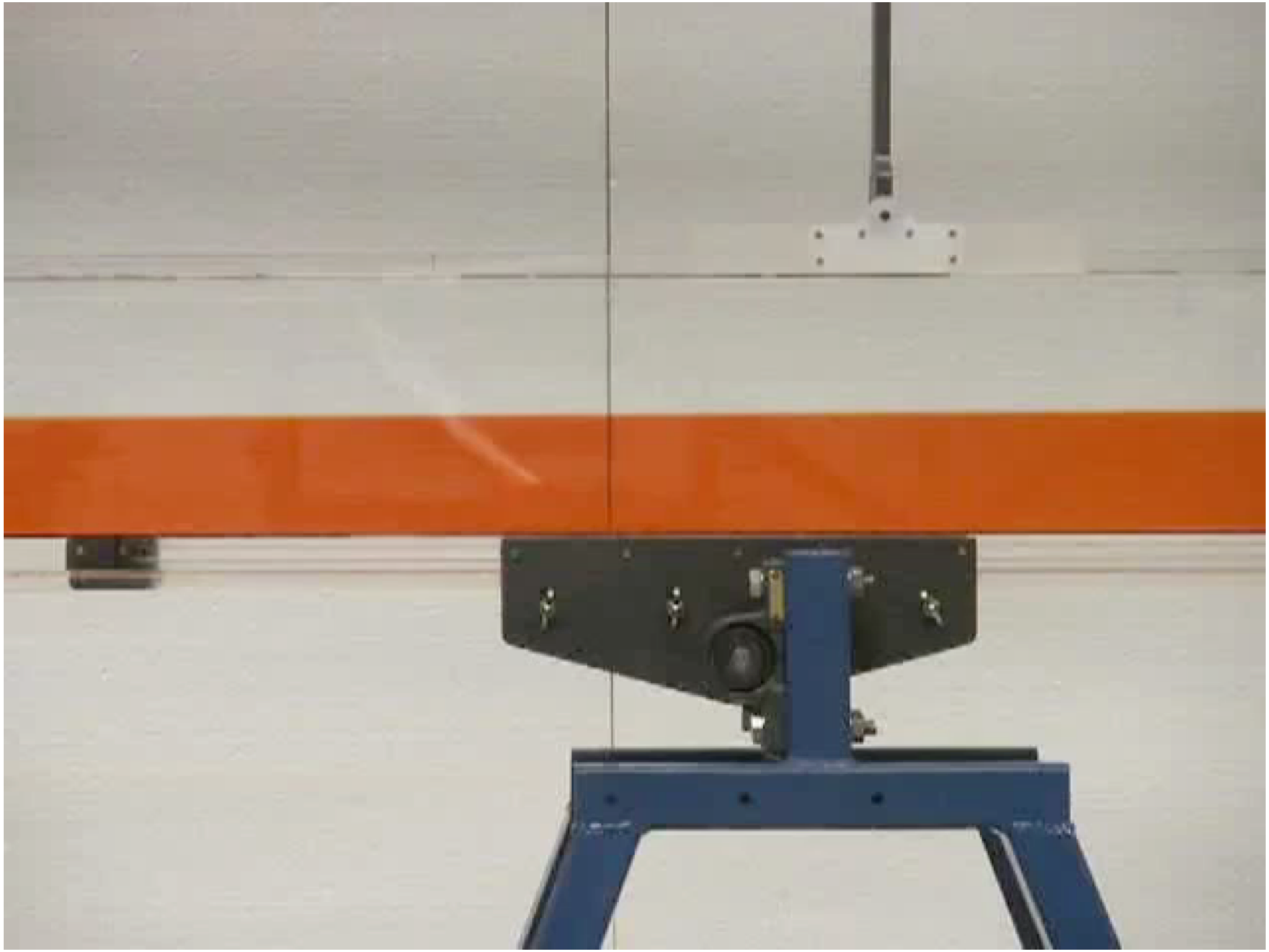
Open and closed cells shallow convection





Mesoscale cellularity in marine stratocumulus clouds. Open and closed mesoscale cellular convection are the dominant forms of organization of low clouds over the remote eastern oceans, but an understanding of the physics of these mesoscale systems continues to be elusive. This MODIS image (approximately 800 km across) shows the sharp transitions that occur between the closed and open cells, which observations suggest may be driven by precipitation.

Kelvin Helmholtz Instability : destabilized by shear



Kelvin Helmholtz Instability : destabilized by shear