Movie6a\_Neumann.avi :  
Movie6b\_Dirichlet.avi :  
Contours of axial vorticity *z* on the planes *z*=0.008 at **=2 and ** = 1. The solid lines are positive (red) contours and the dashed lines are negative (yellow) contours with 10 linearly spaced contour-levels in the range *z* in [-0.2,0.2].(*a*) adiabatic boundary conditions, (*b*) isothermal boundary conditions.  
  
  
Movie7a\_Neumann.avi :  
Movie7b\_Dirichlet.avi :  
Contours of temperature ** on the planes ** =0-**at ** =3.3 and ** = 1. At ** =0 there are 10 linearly spaced contour-levels in the range **in [0,1]. (*a*) adiabatic boundary conditions, (*b*) isothermal boundary conditions.  
  
Movie10\_Dirichlet\_e050.avi :  
Vortex structure identified by the iso-surfaces of *Q*=0 colored by temperature ** at ** =3.3 and ** = 0.5.  
  
  
Movie11\_Dirichlet\_e100.avi :  
Vortex structure identified by the iso-surfaces of *Q*=0 colored by temperature ** at ** =3.3 and ** = 1.  
  
  
Movie12\_Dirichlet\_e100\_top.avi :

Top view of the vortex structure identified by the iso-surfaces of *Q*=0 colored by temperature ** at **=3.3 and **= 1.  
  
Movie13\_Dirichlet\_e100.avi :  
Baroclinic vortex lines *******b* (contours of temperature **) on the plane *z*=0.15 at ** =3.3 and ** = 1. There are 10 linearly spaced contour-levels with ** in [0, 1].  
  
  
Movie16a\_Dirichlet\_e073.avi :  
Movie16b\_Dirichlet\_e073\_slip.avi :  
Contours of temperature ** on the planes **=0-** at ** =3.3 and ** = 1 for constant temperature boundary conditions with (*a*) the regular spin-up case, and (*b*) free slip-wall condition. At **=0 there are 10 linearly spaced contour-levels in the range ** in [0,1].