Movie 1: Instability in a rotor-stator flow at Re = 13200, indicated by an isosurface of Q (see figure 5). The video shows the circular rolls at early times, followed by superposition of weak spiral rolls, and finally, just spiral rolls. The color field indicates the magnitude of the vorticity. The color scale is the same as in figure 5.

Movie 2: Instability around a rotating disk at Re = 800 (see figure 9). The video shows the evolution of an isosurface of Q. The contour of constant Q reaches an axisymmetric steady state, which eventually becomes unstable, leading to a two-fold symmetric contour, which rotates in time.

Movie 3: Instability around a rotating disk at Re = 800. The video shows the flow field in the *xz* plane. The color field indicates the magnitude of the in-plane velocity, while the arrows indicate the magnitude and direction.

Movie 4: Instability around a rotating disk at Re = 700. The video shows projections of the axial velocity onto horizontal and vertical planes The color field is rescaled so that the pattern remains visible throughout the video.

The `cases` directory contains OpenFOAM case files for rotor-stator and spinning-disk flows.