

$$\Delta a_0 = 0.0016$$

ring mass  $m_r$

$10^{-8}$

$10^{-9}$

$10^{-10}$

$10^{-12}$

$10^{-11}$

$10^{-10}$

$10^{-9}$

viscosity  $\nu_s$

699

- $\times$  crossed streamlines
- $\Delta q < 1.5 \times 10^{-3}$
- $1.5 \times 10^{-3} < \Delta q < 2 \times 10^{-3}$
- $\Delta q > 2 \times 10^{-3}$
- ★ unconfined