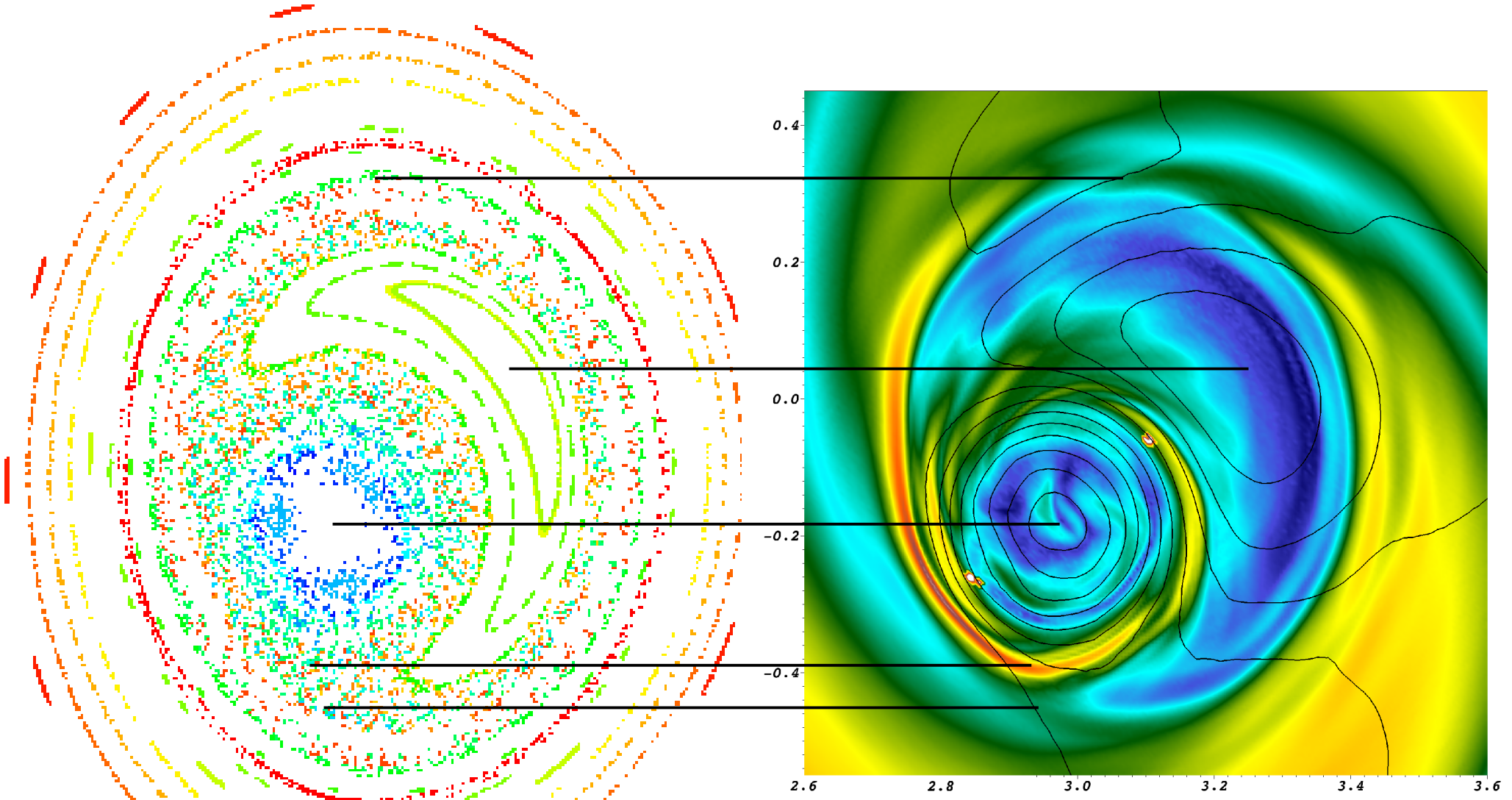


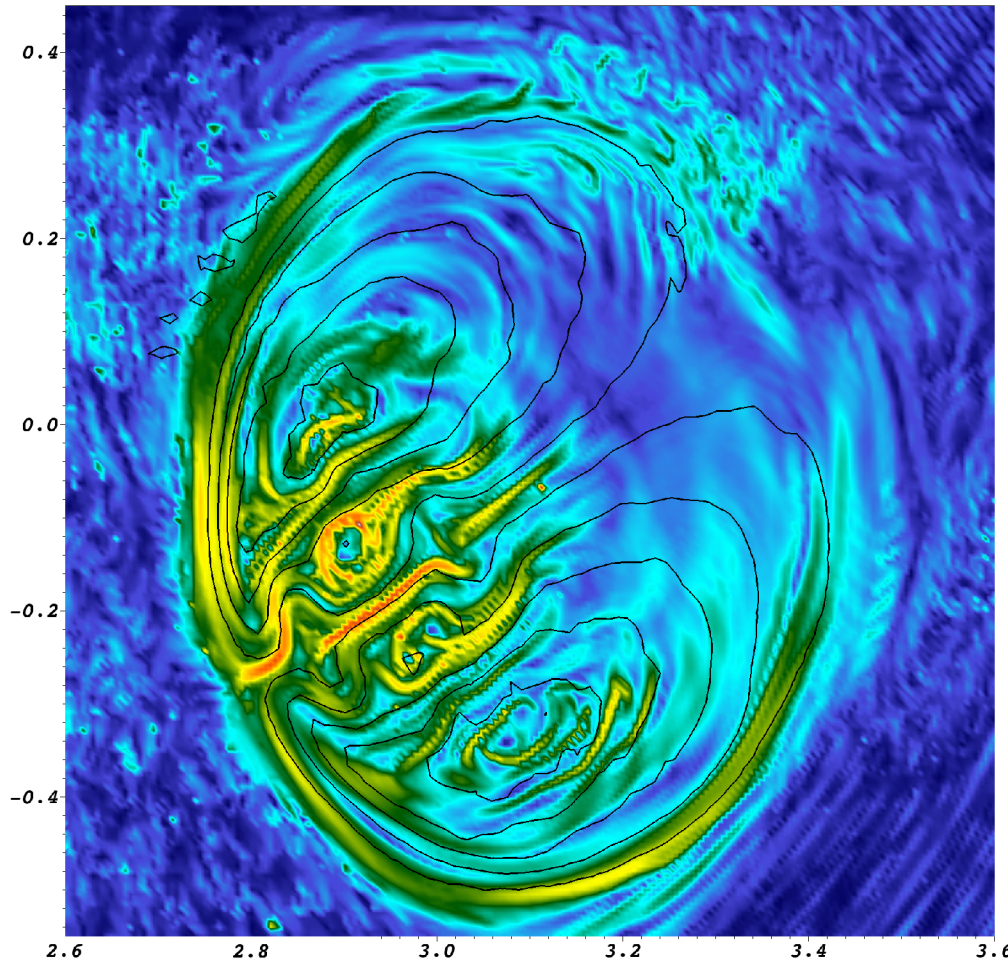
FTLE(B) and magnetic field



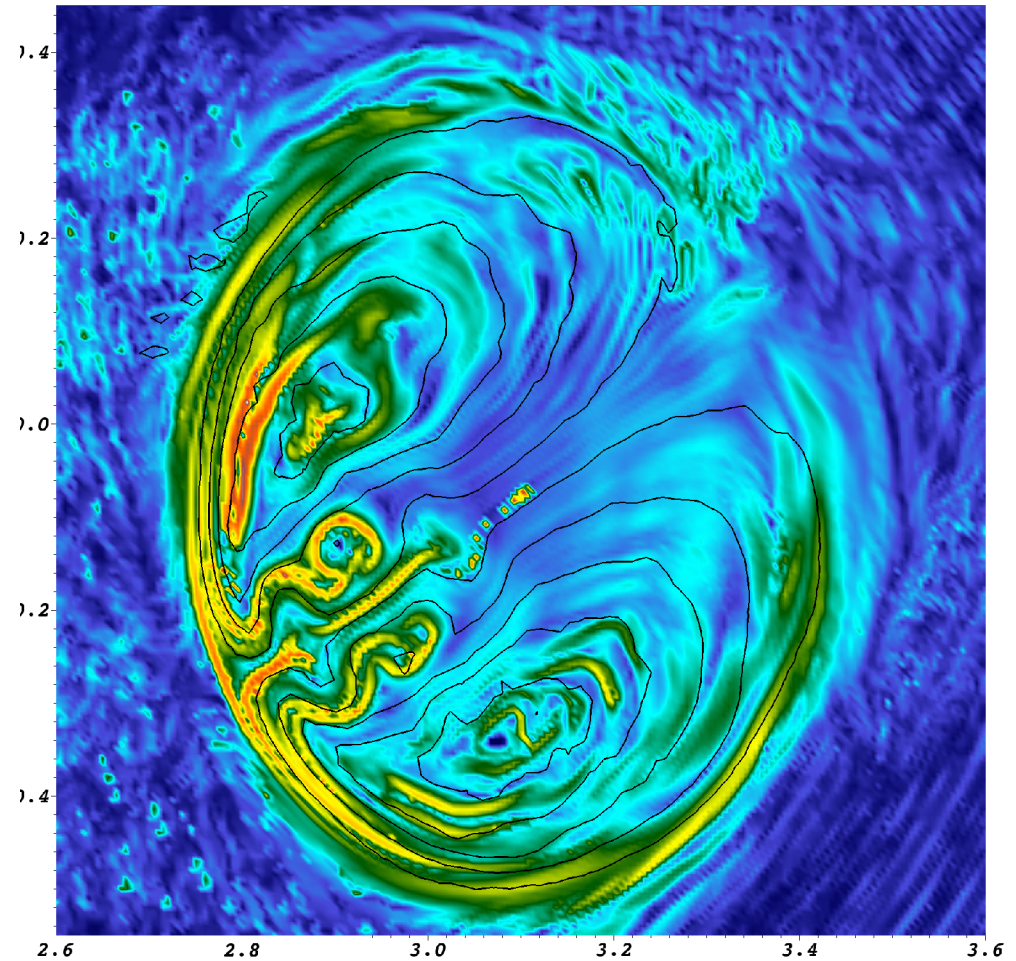
$\phi=0$ (HFS) $t=467.2$

Finite Time Lyapunov Exponent: Velocity

FTLE(+V) with \tilde{U} lines



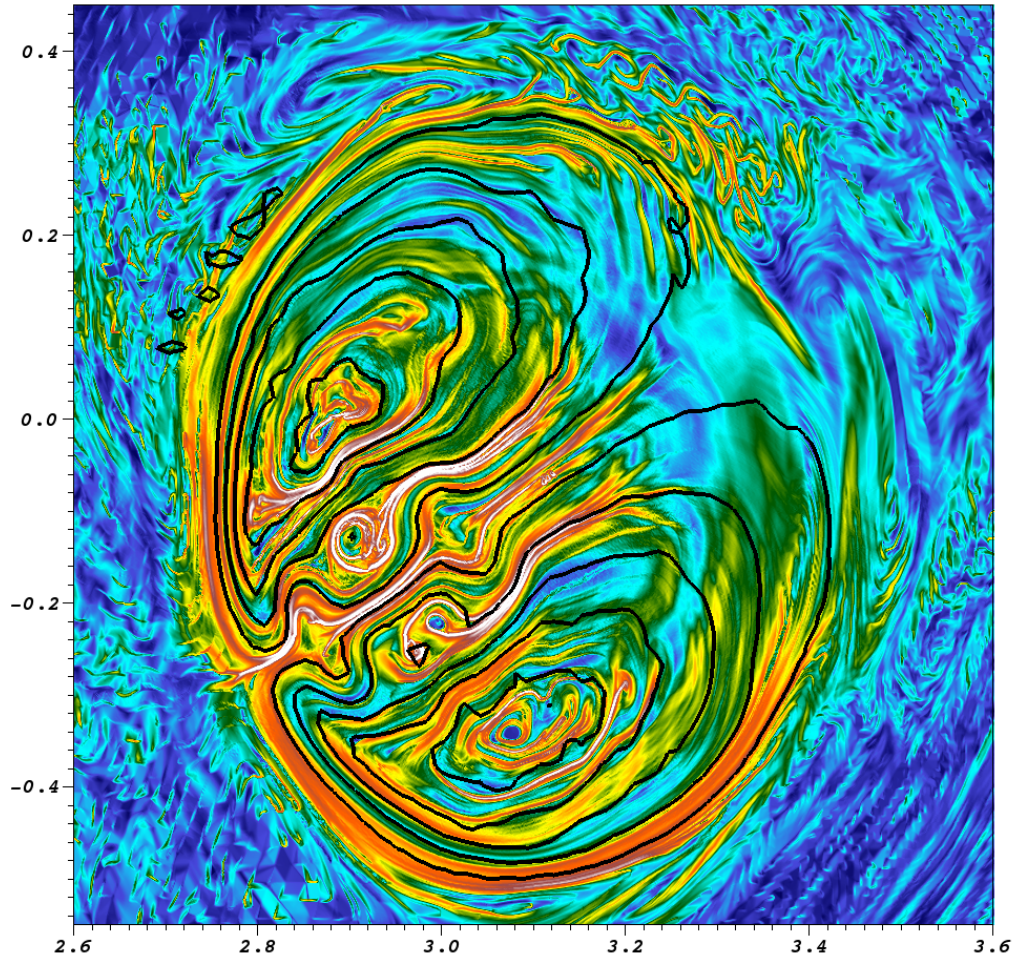
FTLE(-V)



- Velocity field matches poloidal velocity stream function U : 1/1 convective cells
- Velocity flows around O-point of circular magnetic core
- Traced short distance (approx 1/10 of toroidal circumference) $\varphi=0$ (HFS), $t=467.2$

Finite Time Lyapunov Exponent: Tracing distance

FTLE(\mathbf{V}) traced 2x longer



- Following \mathbf{V} for longer brings out more small scale structure (as for regular fluid \mathbf{V}).
- $|\text{FTLE}|$ increases, so colors change; still close to poloidal velocity stream function U

$\varphi=0$ (HFS), $t=467.2$