Figure 1: Half a period of oscillation in the case $\eta = 0.65$, $P = 1$, $\tau = 2000$, $R_e = 150000$, $P_m = 3.5$, $\beta = 1.5$ with stress-free velocity boundary condition at $r = r_o$ and no-slip at $r = r_i$. The left column shows contour lines of B_r at $r = 1$ and the right column shows contour lines of $-\frac{\partial g}{\partial \theta}$ at $r = 0.9$. The time interval between the snapshots is 0.0308.

Remarks:

e065p1t2r150000m1p3.5mvbcFDsolrot1.5per

Phase shift between poloidal and toroidal components of the magnetic field.