

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 first row shows contour lines of  $B_r$  at r = 1 and the second row shows contour lines of  $-\frac{\partial g}{\partial \theta}$  at r = 0.9. The time interval between the snapshots is 0.0308.

Remarks:

e065 p1t2r150000 m1 p3.5 mvbcFD solrot 1.5 per

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