What to include to capture a Rayleigh simulation

04/09/2023

For each simulation in a suite, make a folder with appropriate name:

Within that folder, put:

1. main\_input
2. equation\_coefficients
3. grid\_info
4. jobinfo.txt
5. “custom\_reference\_binary” (if any)
6. Checkpoints/last\_checkpoint\_folder
7. [all data folders]/last output file
8. data/:
   1. G\_Avgs trace (multiple domains for tachocline models)
   2. time-averaged averaged over equilibration:
      1. AZ\_Avgs
      2. Shell\_Avgs
      3. G\_Avgs
      4. Shell\_Spectra
   3. time-latitude traces (if magnetic or unsteady):
      1. <v>
      2. <B>
   4. time-radius traces (if magnetic or unsteady)
      1. <v>
      2. <B>
   5. m = 0, 1, 2 versions of c. and d. if it makes sense
9. plots/:
   1. energy trace (multiple domains for tachocline models)
   2. angular momentum trace (multiple domains for tachocline models)
   3. steady-state meridional-plane figures:
      1. differential rotation
      2. meridional circulation
      3. <S> and <P>
      4. torque balance
   4. steady-state line plots:
      1. differential rotation (along radial lines)
      2. radial energy flux balance
      3. latitudinal energy flux balance
      4. v’(r) and B’(r) (if magnetic—put on same row)
      5. Left: <S>\_sph and rms fluctuation about <S>\_sph, right:<P>\_sph and rms fluctuation about <P>\_sph
   5. slices:
      1. Mollweide grid of v\_r, om\_r’, and om\_z’(rows) for 3-5 radial levels (columns)
      2. Same for B\_r, B\_phi, and J\_r
      3. Equatorial cuts of v\_r, om\_r’, and om\_z’ (columns)
      4. same for B\_r, B\_phi, and J\_r
      5. Meridional grid of v\_r, om\_r’, and om\_z’(rows) for 4 longitudes (columns)
      6. Same for B\_r, B\_phi, and J\_r