

# EquaPak

Routines for calculating eigenvalues and eigenmodes of the linear system described in Emanuel (2020):

***equamodes.m***: Calculates eigenvalues and eigenmodes but plots only the former. Use a subsequent call to *equaplot* to plot eignemodes. Read the header (or type 'doc equamodes') for more information. Note that this routine can be slow.

***equaplot.m***: Plots various eigenmodes produced by the most recent run of *equamodes*.

Note: Using the default values gives results that differ slightly from those reported in Emanuel (2020). Subsequent to that paper, it was discovered that the parameter  $\kappa$  must always be unity.

## Reference

Emanuel, K., 2020: Slow Modes of the Equatorial Waveguide. *Journal of the Atmospheric Sciences*, **77**, 1575–1582, <https://doi.org/10.1175/jas-d-19-0281.1>