

ERTH 448 Lecture 19 Outline

Internal structure of the Earth

- examples of seismic wave heterogeneity and implications for structure

Composition of the Earth

- crustal material
- mantle materials
 - o olivine
 - o phase transitions
- core material
 - o information from meteorites
- CMB complexity

Convection in the mantle

- assumptions used
- physical constraints
- Rayleigh number
- Reynolds number
- Nusselt number