Establishing Community Versions of Semi-analytic codes I

1. Applications?
2. Criteria for final products?
3. What codes?
4. Who/How/When to implement this?

Establishing Community Versions of Semi-analytic codes II

Applications

- Simple models
- Intuition building
- Avoid unnecessary use of FEM
- Inversions
- Course use
- Benchmarking FEM codes
- Integration into FEM workflow…

Establishing Community Versions of Semi-analytic codes III

Eventual Criteria for final products (not Phase 0)?

- Centralized access
- Robust, accurate, believable & efficient
- Documented
- Multiple or common languages? (Python, matlab, low level)
- Modern interfaces when useful

Establishing Community Versions of Semi-analytic codes IV

What codes?

- Elastic ½ space (okada, yang, …)
- Layered elastic, linear VE
- Spherical E, VE - with & without gravity
- 2D
- Boundary element
- Perturbation codes (topo, heterogeneous moduli)

Establishing Community Versions of Semi-analytic codes V

Who/How/When to implement this?

- Who: Rowena (*Chair*), Kaj, Paul, Charles, Sylvain, Oliver, Ravi?
- Phase 0 (immediate)
  - Collect existing codes and minimum documentation from donors
  - Archive, post, allow for feedback/fixes/improvements
  - Request initial *minimal* support for the above from CIG (work with Brad on how to proceed)
- Phase 1 (within year or at least by end of next CFEM)
  - Decide what to do next using feedback
    - ✓ Choice between similar codes?
    - ✓ Language conversions?
    - ✓ Interface modernization/homogenization?