**Verification and sensitivity analyses** (3D incompressible viscoelastic wave equation):

1. Use different frequency ranges- frequency increment
2. Use multiple pushes
3. Use multiple receivers’ planes.
4. Add different level of noise
5. Use different initial guess
6. Use different inclusion shape
7. Introduce error in push location/spatial configuration
8. Invert storage and loss modulus as G\_s+i G\_l simultaneously, so the number of inversion parameters would be twice what we are doing now (G\_0 (1+i omega/omega\_r)) where we only invert G\_0
9. Invert inclusion and matrix modules simultaneously.
10. Try different parameterization!
11. Do we need some regularization terms added to the cost function?

**Validation**

Phantom data for:

1. Spherical inclusion with single and multiple pushes
2. Cylindrical inclusion with single multiple pushes.