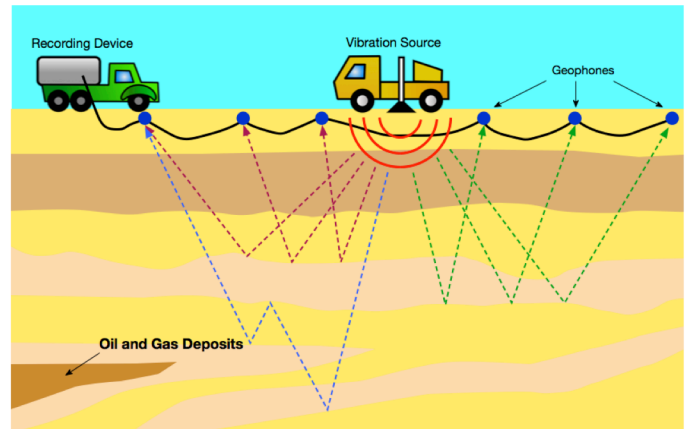


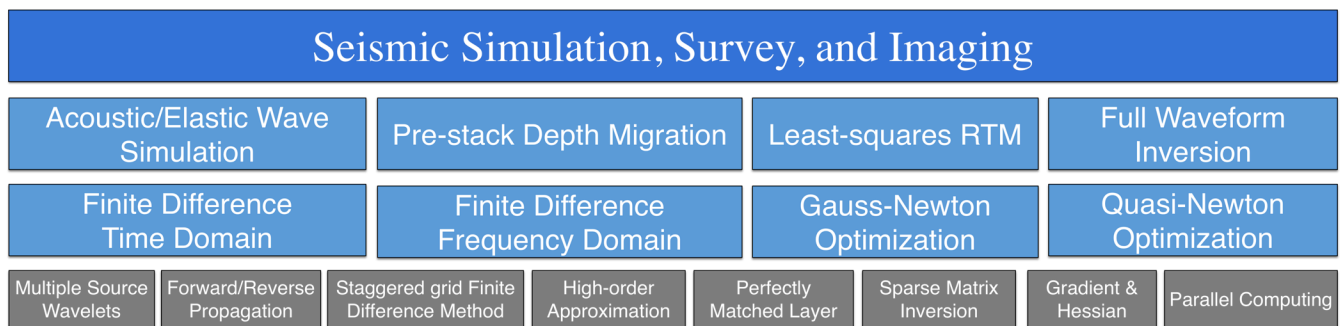
Purpose of S3I

- Provides an easy MATLAB®-based library to simulate seismic imaging
- Produces synthesized data for any given velocity model
- Targets students as well as professionals in exploration geophysics
- Provides an efficient implementation of the processing pipeline for seismic imaging
- Provides a platform to build other features such as interpretation and reservoir modeling



Seismic Survey

Structure of S3I Library



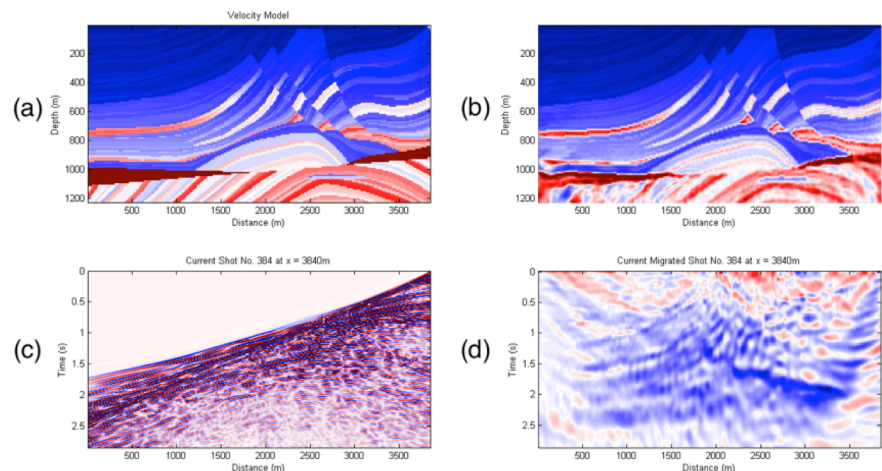
Main functions of S3I

- Acoustic/elastic wave simulation
- Pre-stack depth migration
- Least square RTM (LSRTM)
- Full waveform inversion

Other Features

- Open source
- Detailed user guide
- GUI for seismic survey
- C MEX-files enhanced
- Parallel computing

Imaging Example



Full Waveform Inversion

- (a) True velocity model (b) Final FWI result
(c) Seismic data for one shot (d) Imaging result for one shot in one iteration

Download url: <http://cegp.ece.gatech.edu/s3i/>