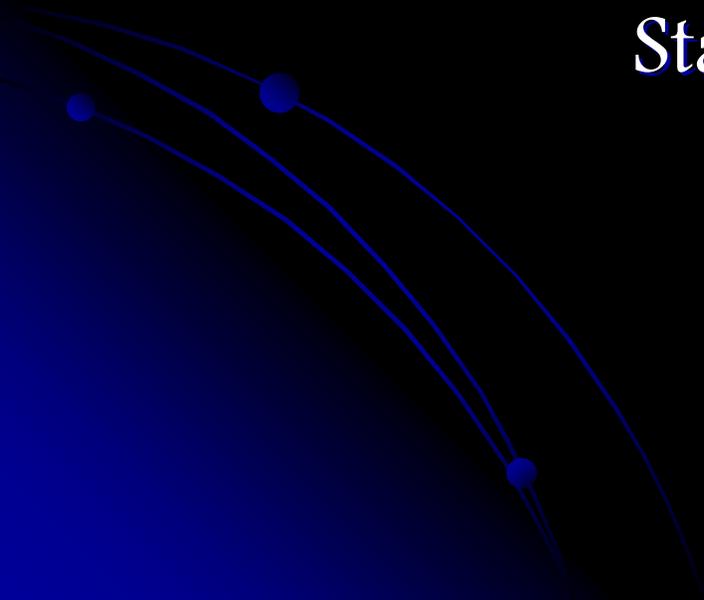


200Mm Time~Distance Pipeline

Status 11/5/2007



200Mm Time~Distance

- Lead – Tom Duvall
- Task – From Dopplergrams generate deep-focus synoptic flow maps and sound-speed perturbation maps.
- Input – Dopplergrams and inversion kernels
- Level 2 Output
 - 200Mm Synoptic flow maps (4 images per timestep) – data saved in database, cadence is 1 d., size is some MB ea. image
 - Travel-time maps – data saved in database, cadence is 1 d., size is some MB ea. image

200Mm Time~Distance (cont'd)

- Code
 - trackm (Rick) – tracked tiles from Dopplergrams
 - <filtering> (Junwei) – phase speed or other filters
 - <cross-covariance> (Duvall) – Deep-focusing geometry cross-covariance
 - <travel-time fitting> (Junwei/Duvall) – Travel-time fits; either same as 30Mm, or Gizon-Birch method
 - <deep-focus kernel calc> – Deep-focus kernel calculation ; ray kernels at present.
 - <spherical-geometry inversion> – Calculate inversions using spherical geometry; Junwei is developing this

200Mm Time~Distance (cont'd)

- Processors – could be pretty expensive
- Status
 - Fortran filtering exists, needs module
 - Cross-covariance IRAF implementation exists, needs testing, needs module
 - Fortran travel-time fitting code (both 30Mm version and Gizon-Birch version) needs fine tuning, needs a module
 - Deep-focus kernel-calculation algorithm does NOT exist
 - Spherical-geometry inversion algorithm does NOT exist (Junwei is working on this)
- Plan/Issues
 - Need schedule
 - Need processor estimates
 - Need to figure out linking of IRAF output with DRMS libs (DRMS metalibs exist)