The background of the slide features silhouettes of several large, gnarled trees, possibly acacias, against a vibrant sunset or sunrise. The sky transitions from deep blue at the top to bright orange and yellow near the horizon. The trees are dark and silhouetted, creating a strong contrast with the colorful sky.

MeqTrees Practical Session

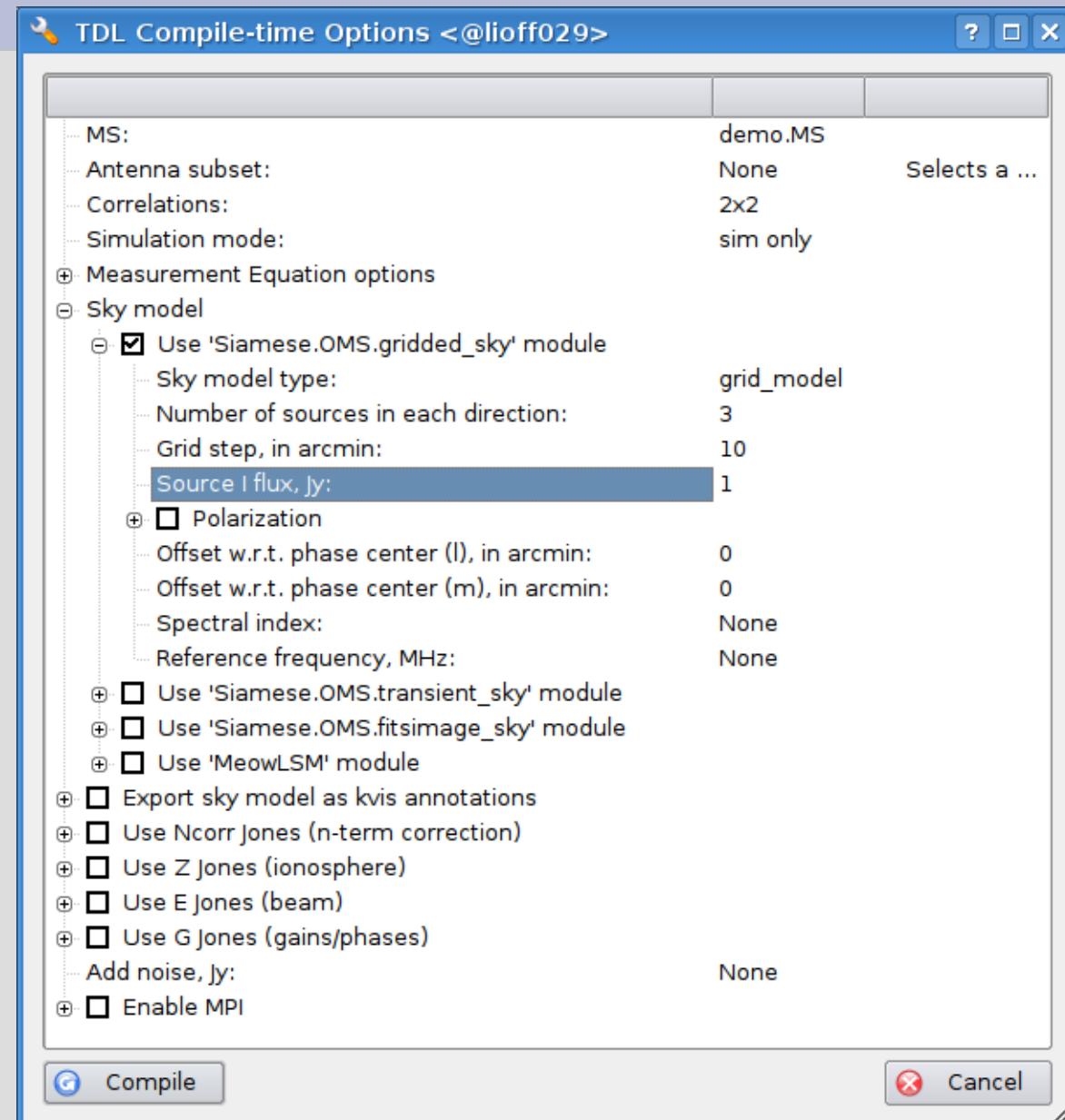
O. Smirnov (ASTRON)

Getting Started

- Copy over the exercise data:
> cp -a /data/lofarschool/data/Exercise-MeqTrees/Sim/* .
- Init the environment:
> source meqtree-init.csh
- Start it up!
> meqbrowser.py

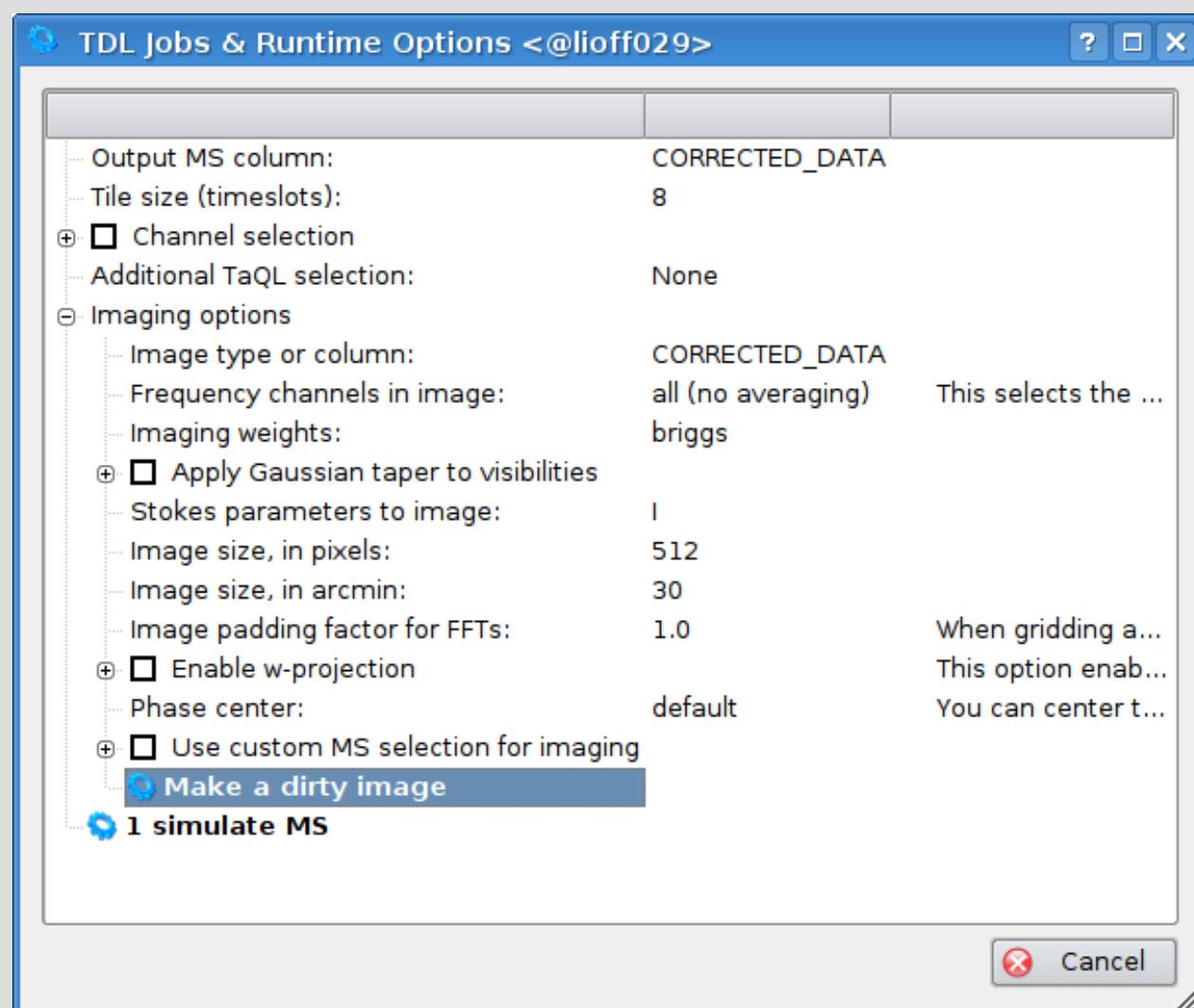
First Sim

- Go to TDL > Load TDL Script (or just press Ctrl+T)
- Load up exercise-sim.py
- Set up options:
- Click “Compile”



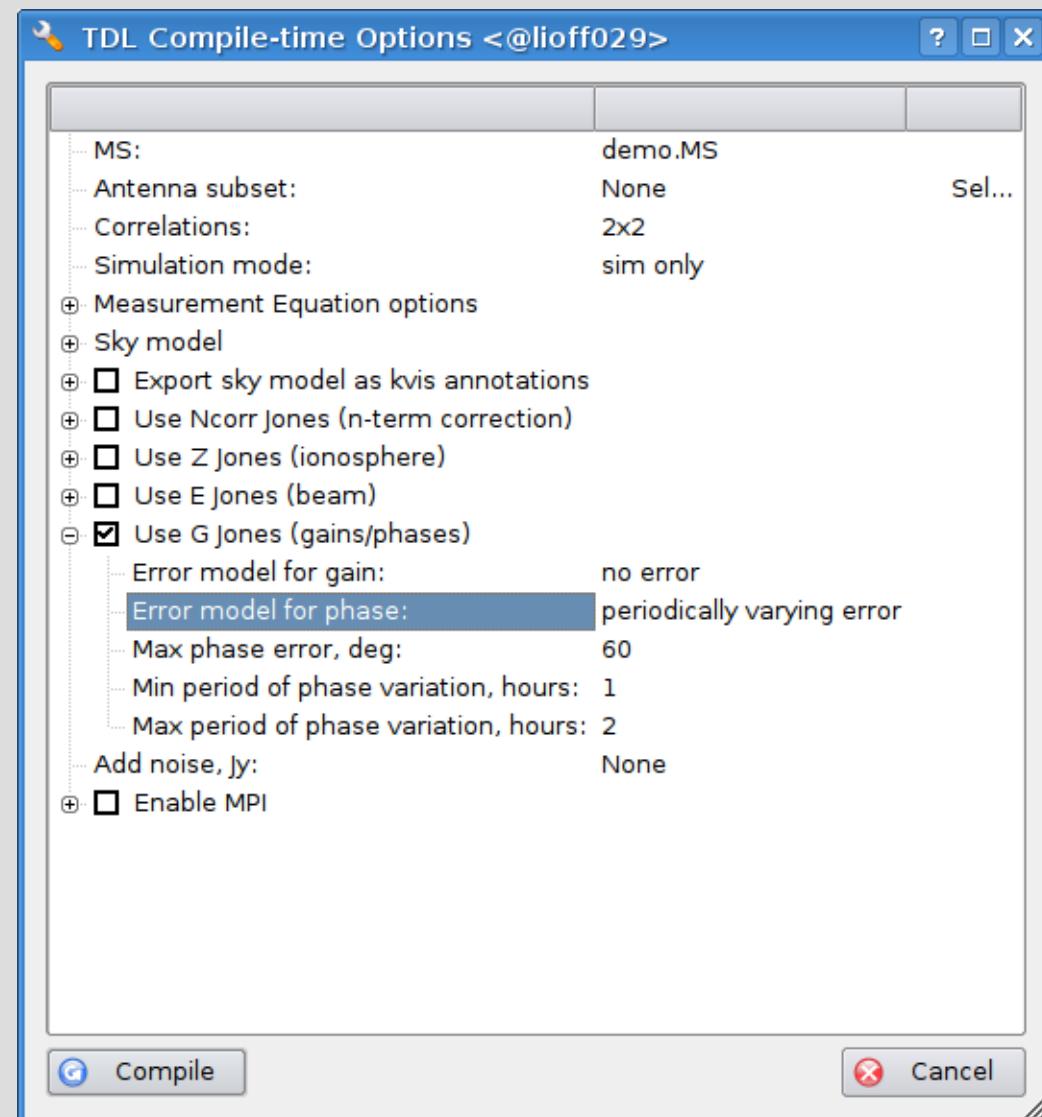
First Sim, cont'd

- Click “simulate MS”
- Set up options:
- Click “Make a dirty image”



Adding Phase Errors

- Enable “G Jones” in compile options:
- Compile
- Open bookmark!
- Run “simulate MS” and make another image

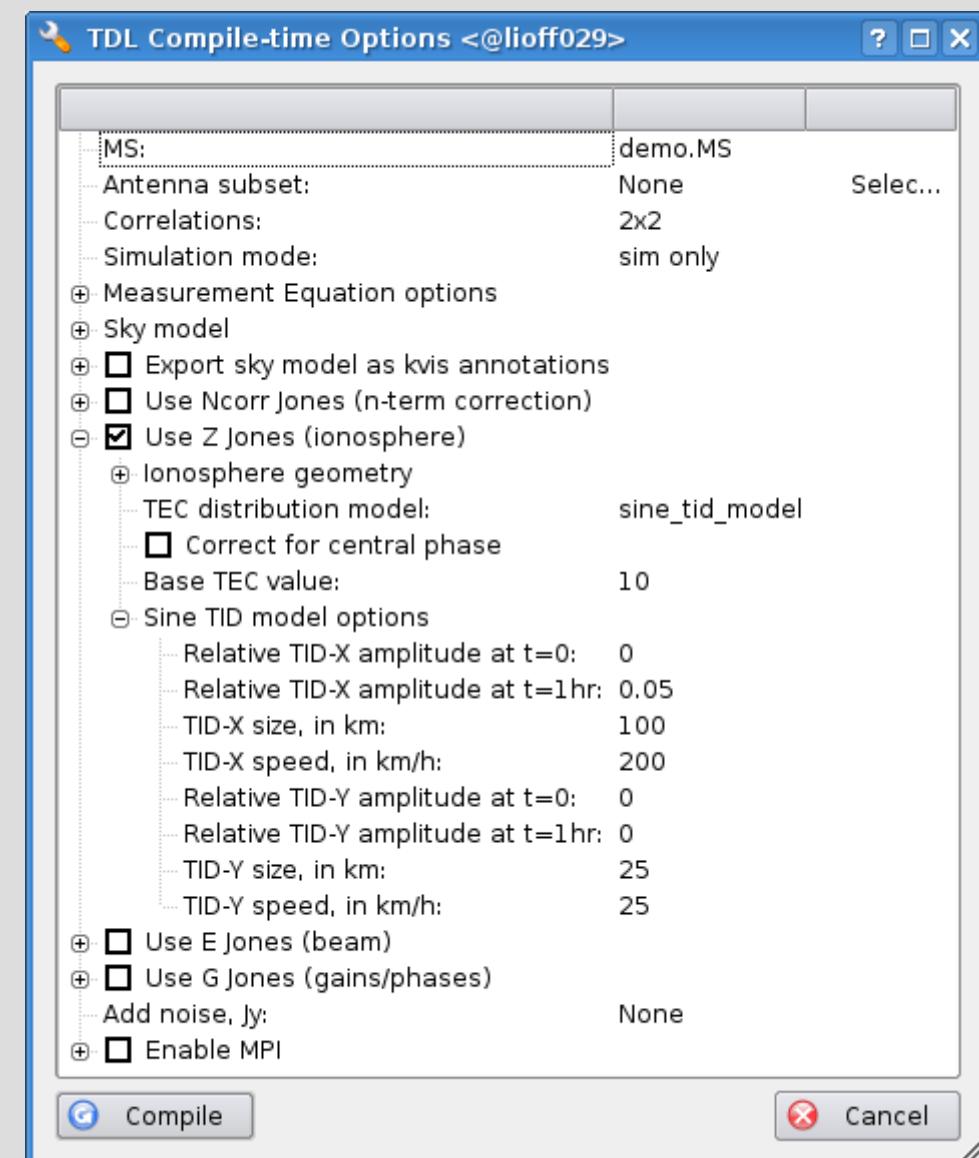


Increasing Phase Error

- Increase phase error to 120 degrees
- Simulate MS, make another image

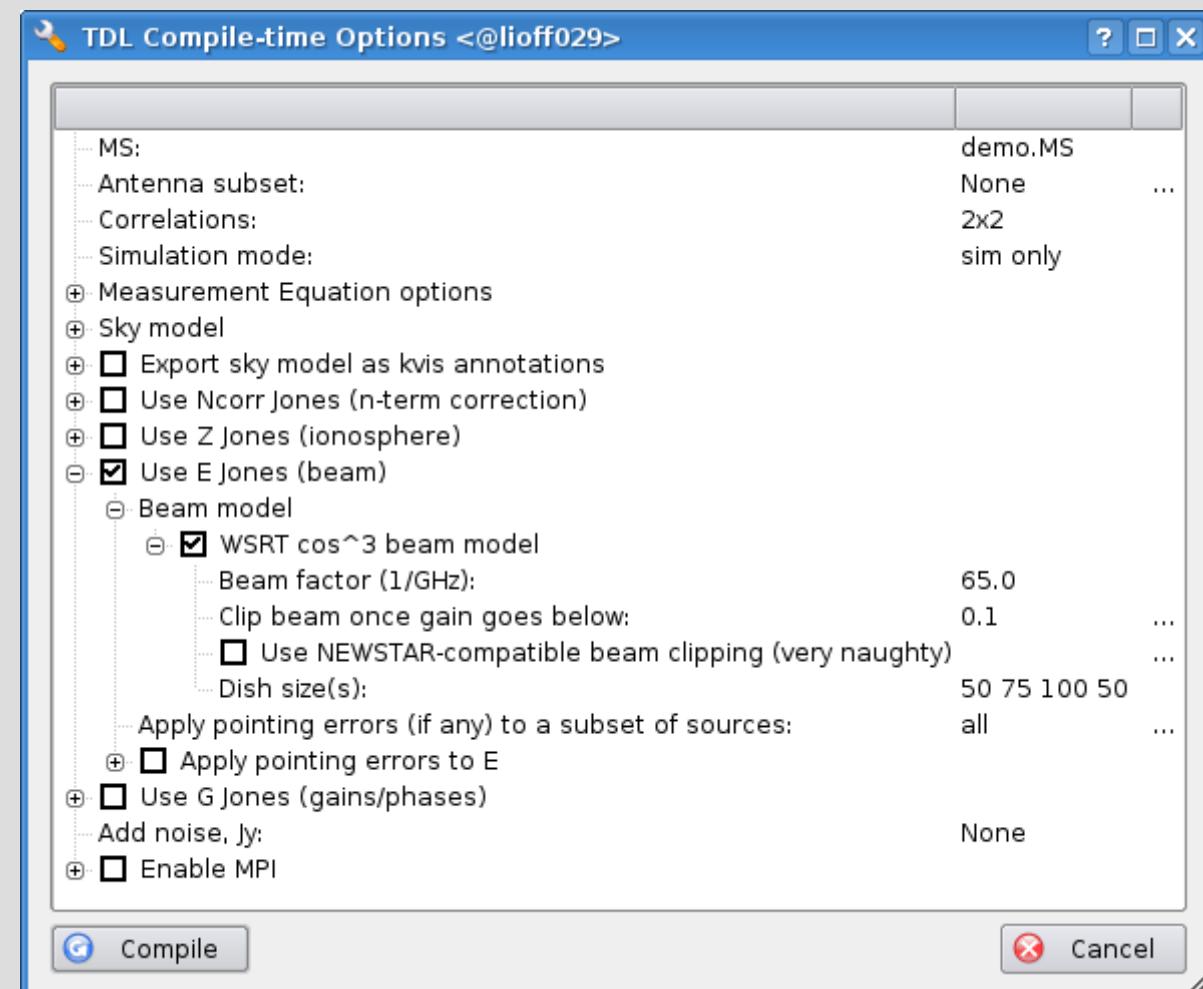
Adding An Ionosphere

- Enable Z Jones, disable G Jones
- Open some bookmarks
- Simulate MS, then make an image



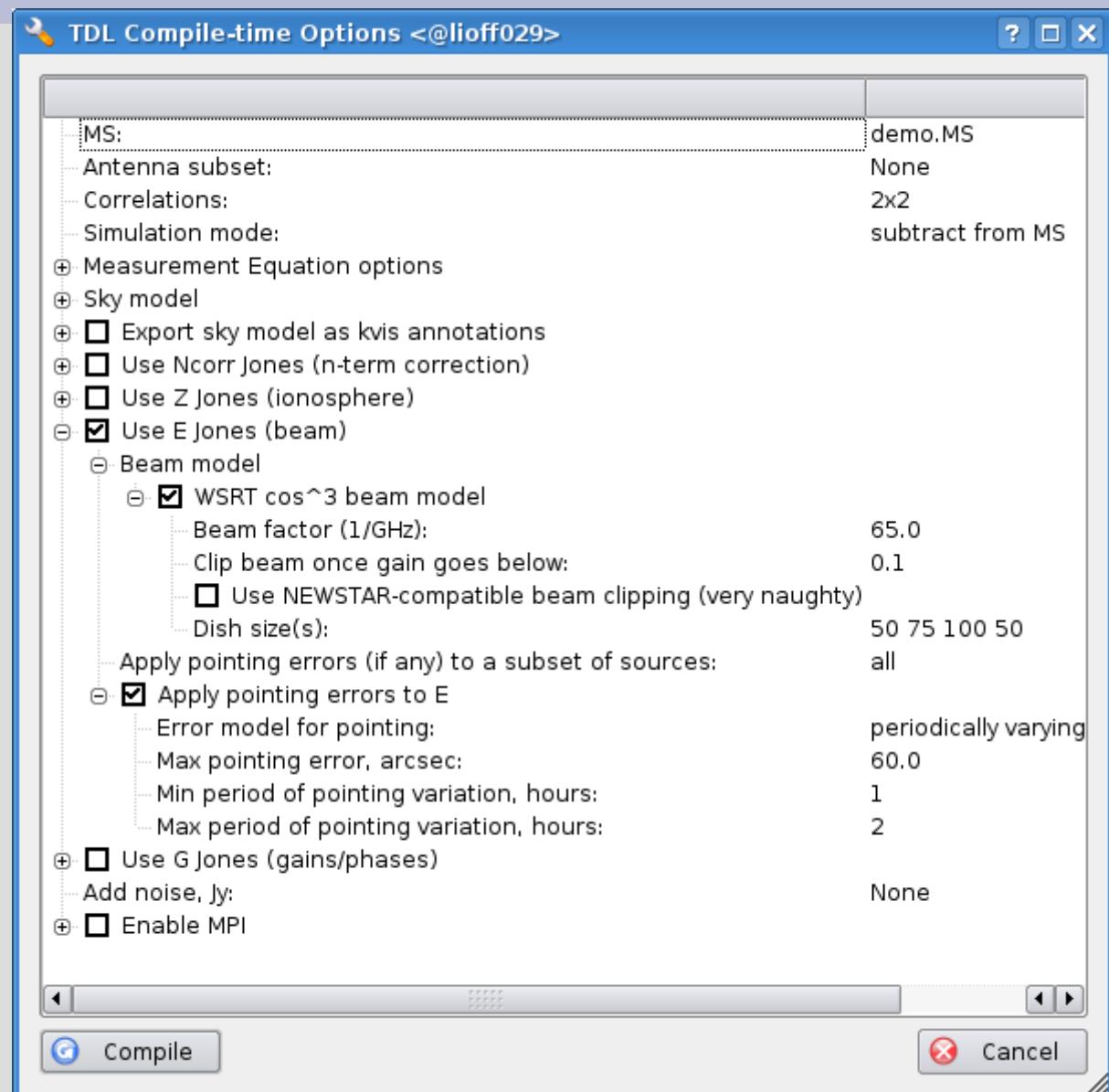
Adding a Primary Beam

- Add E Jones, remove Z Jones:



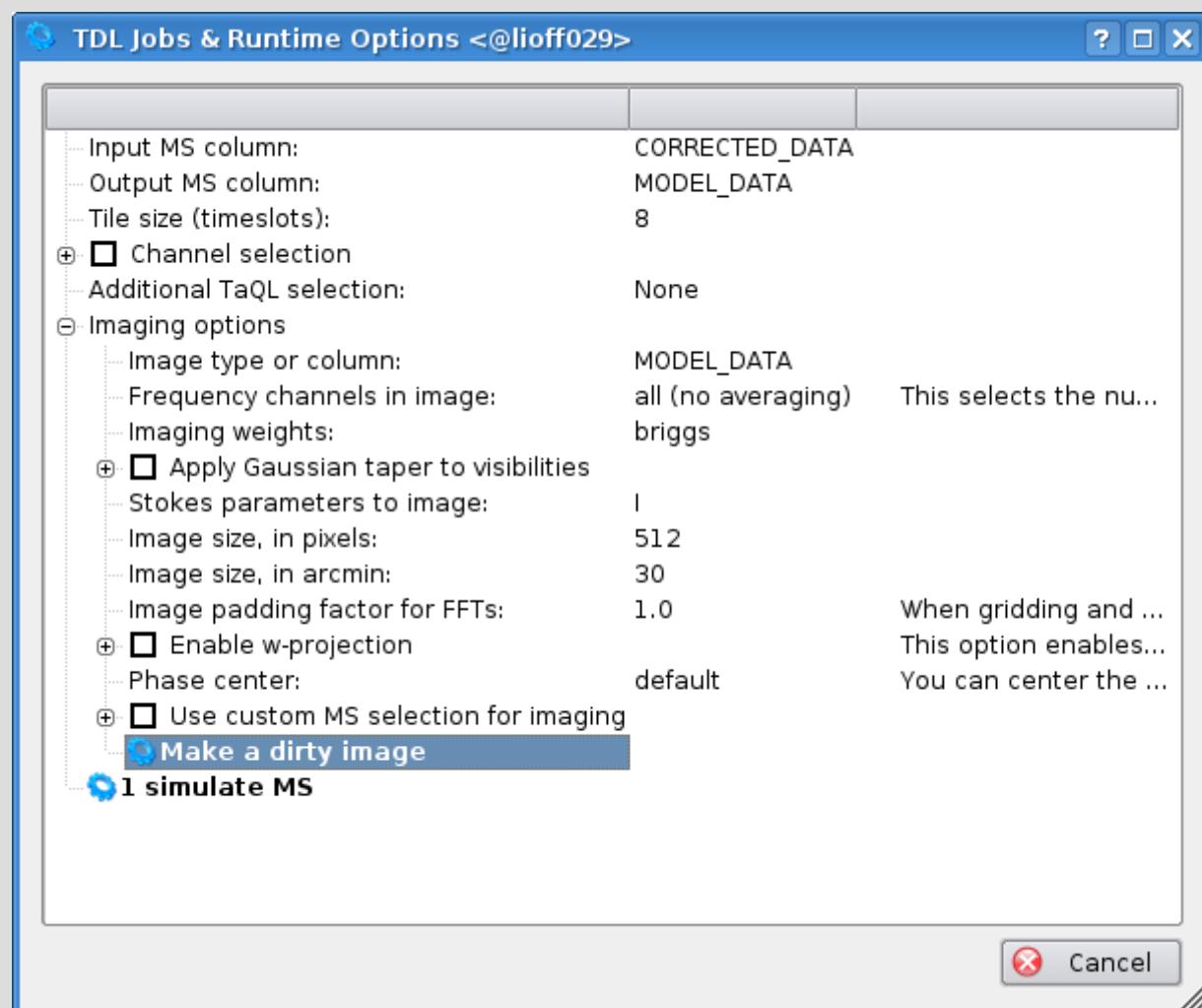
Adding Pointing Errors

- Set simulation mode to “subtract from MS”
- Enable pointing errors:
- Compile...



Adding Pointing Errors, cont'd

- Set input and output columns correctly before running the sim:



Free-for-all

- Time left? Play with the other options...