

Automatic Gradient Shimming

- TopSpin Command on DRX-500: *gradshim*
- Imaging Experiment: Maps Inhomogeneity in Sample Along the Vertical (z) Axis Using ^2H Signal of Solvent
- Two Images Are Acquired with Different Time Delays
- Comparison of the Two Images Give the Deviation in Hz (Deuterium) at Each Point Along the Vertical Line
- This “Field Profile” is Displayed with Hz Deviation on Horizontal Axis and Distance Along z on Vertical
- Each Z Shim (Z, Z2, Z3, Z4, Z5) Has Been Mapped So the Change in Field Is Known at Each Point
- Program Calculates How Much to Change Each Shim
- Shim Changes Are Applied and the RMS Deviation is Displayed for Before and After *gradshim*
- Lock is Turned Back On
- Usually *gradshim* Is Repeated for 2 or 3 Rounds