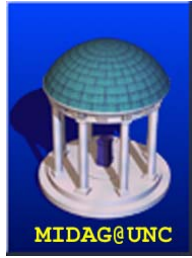


NAMIC DTI Training Tools

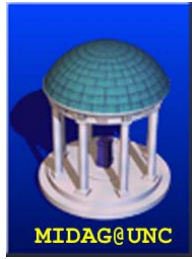
Guido Gerig
Marcel Prastawa, Tim Terriberry,
Matthieu Jomier
UNC Chapel Hill

Tools



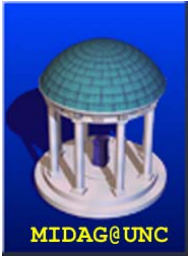
- **Glyph:** Interactive Display of Tensors
- **Fiber:** Streamline Tracking starting from seed point
- **Connectivity:** Tensor-Warped Distance Map (Riemannian flow)
- **MriWatcher:** Simultaneous View of multiple MRI/DTI channels (download at www.ia.unc.edu/dev/)

Instructions

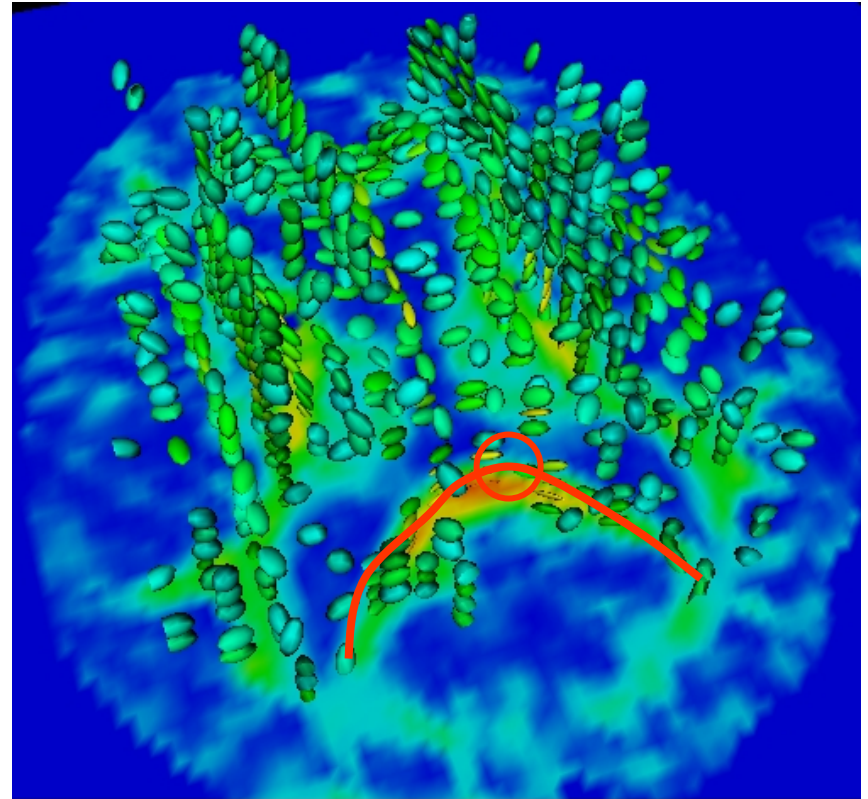


- Start tool (PC Windows)
- Load tensor data (vtk format)
- Choose x, y, z orthogonal planes to visualize FA slices
- Choose minimum FA values to display glyphs
- Adjust maximum size of glyphs
- Select ROI (press "I" and adjust box dimension)

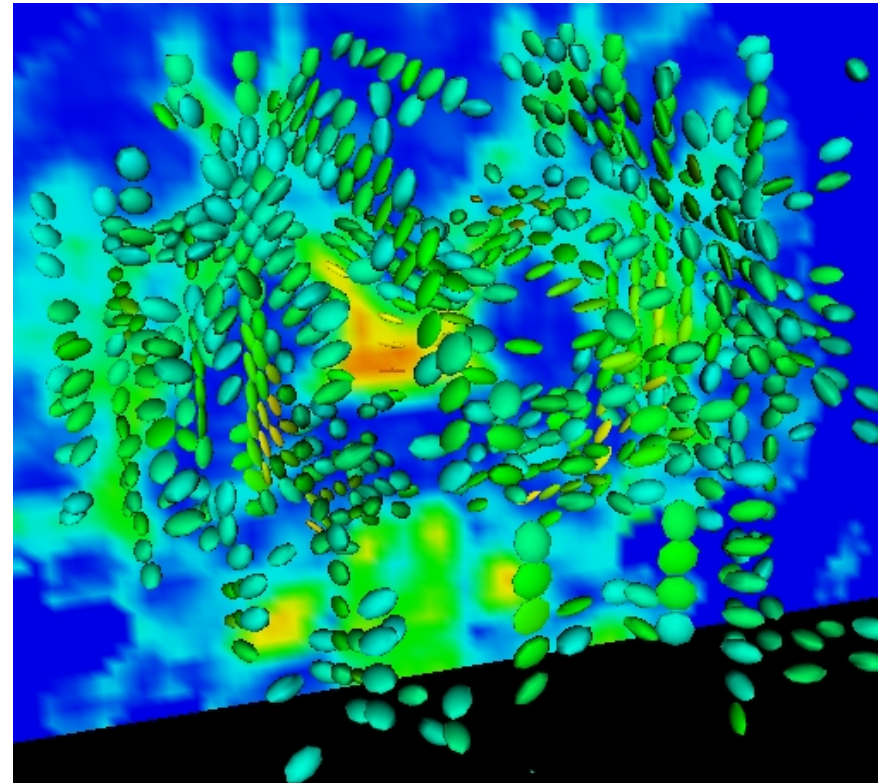
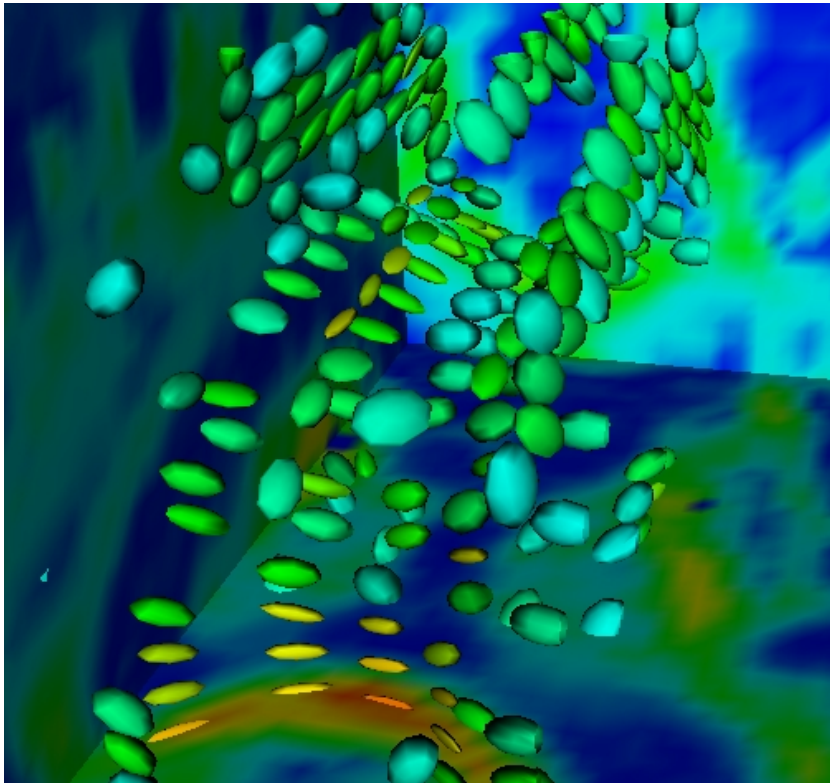
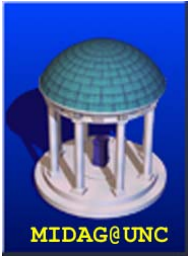
Connectivity of White Matter



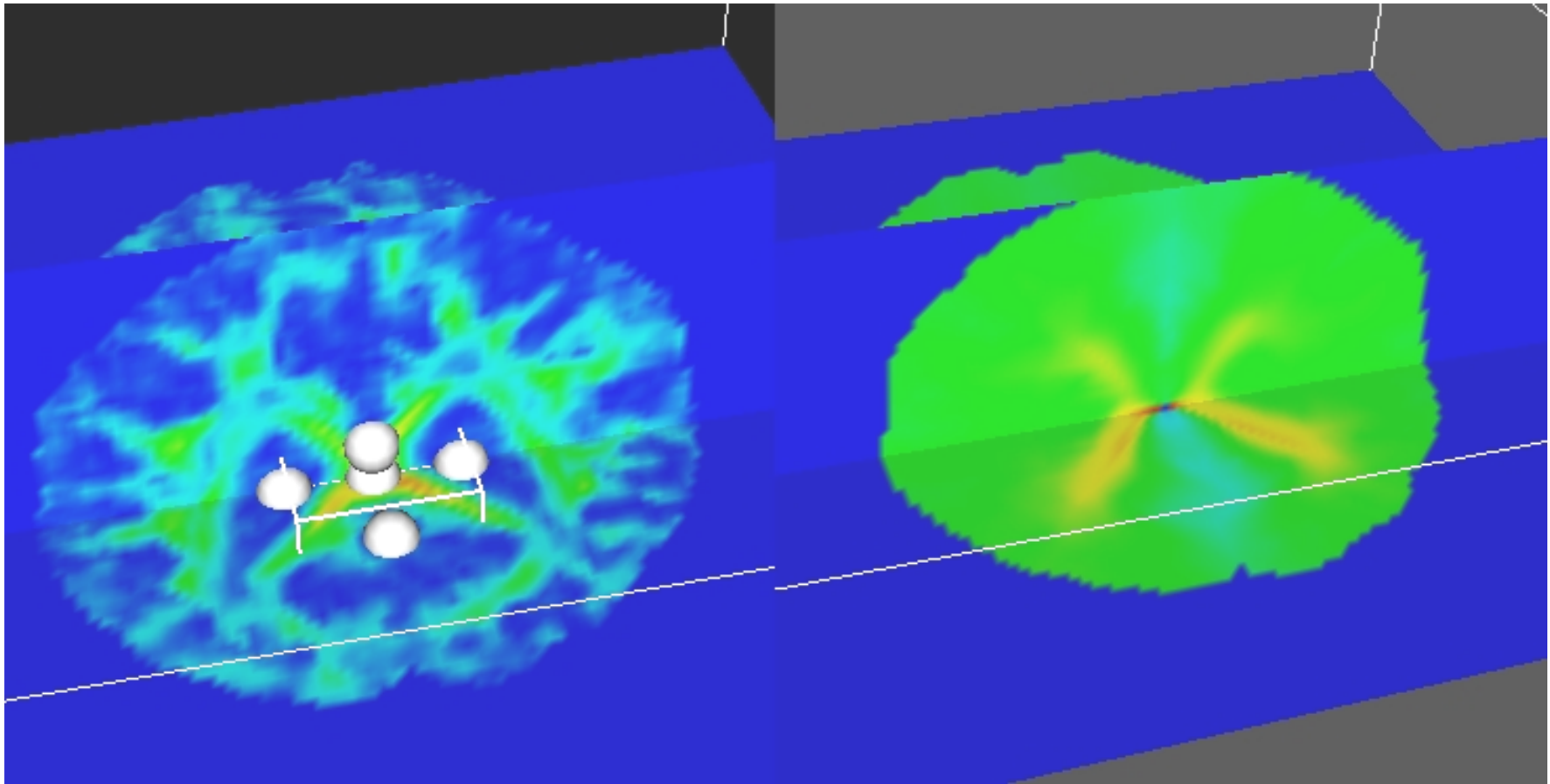
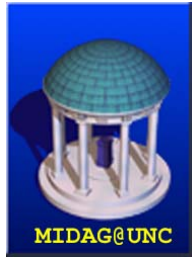
- Study diffusivity in 3D tensor field
- Propagate diffusion originating at user-selected seed point
- Display integrated "length" along connected paths at each voxel
- Measurement "connectivity strength"



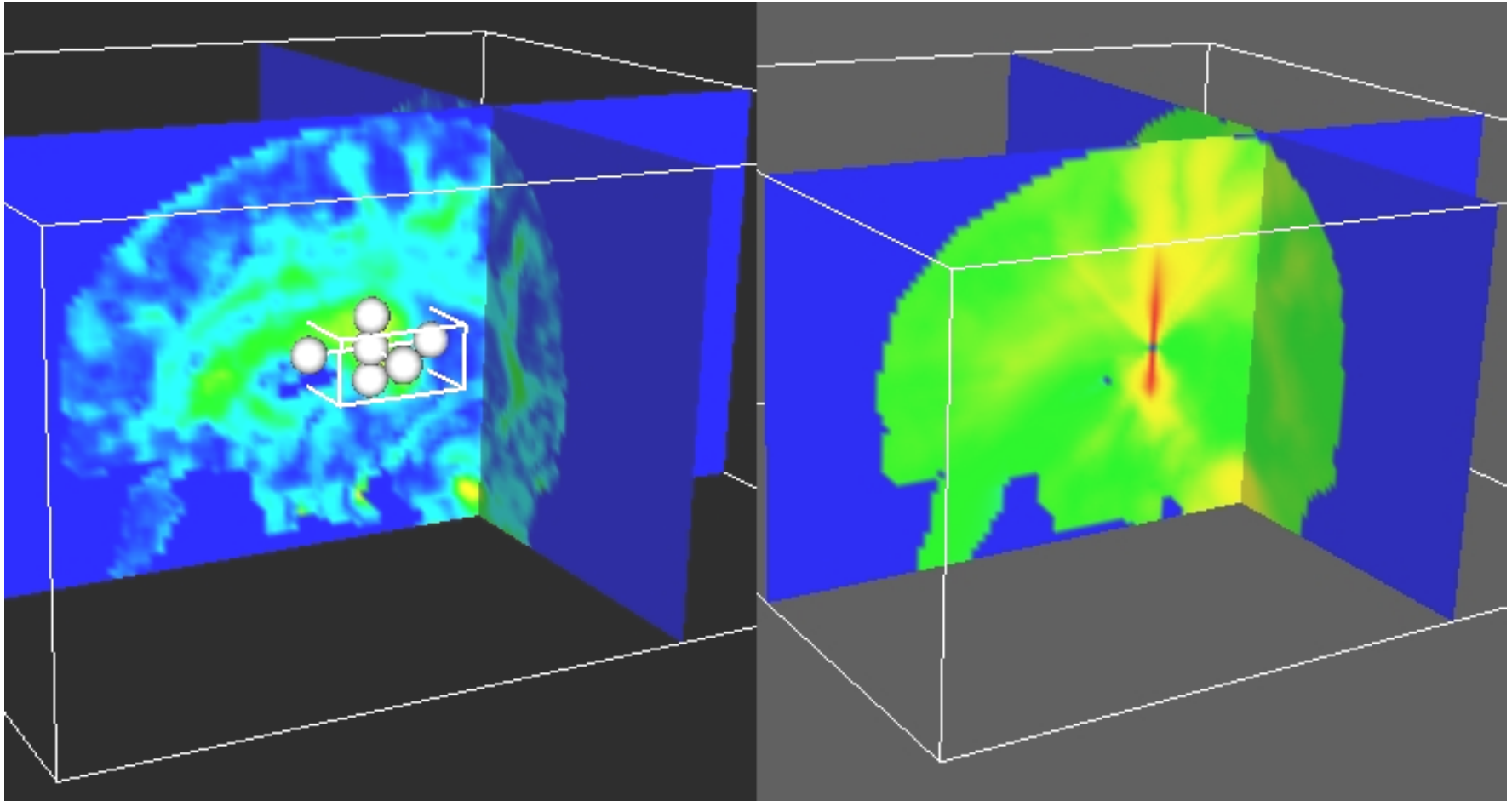
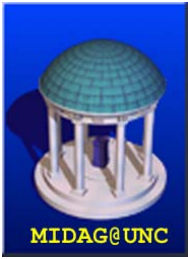
Tensor Representation



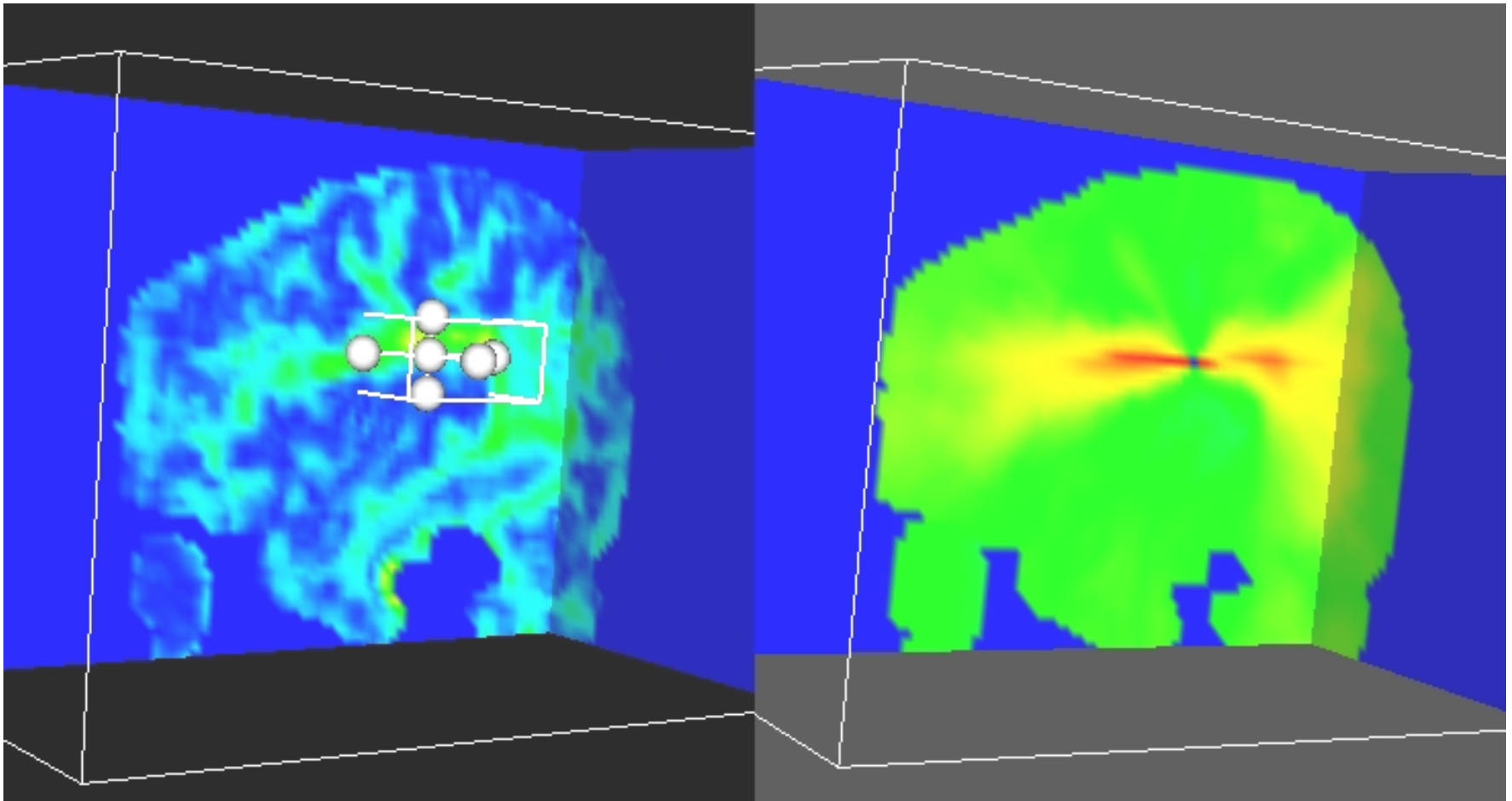
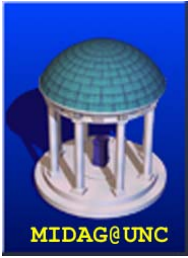
Tensor-Warped Distance Map (O'Donnell, MICCAI'02)



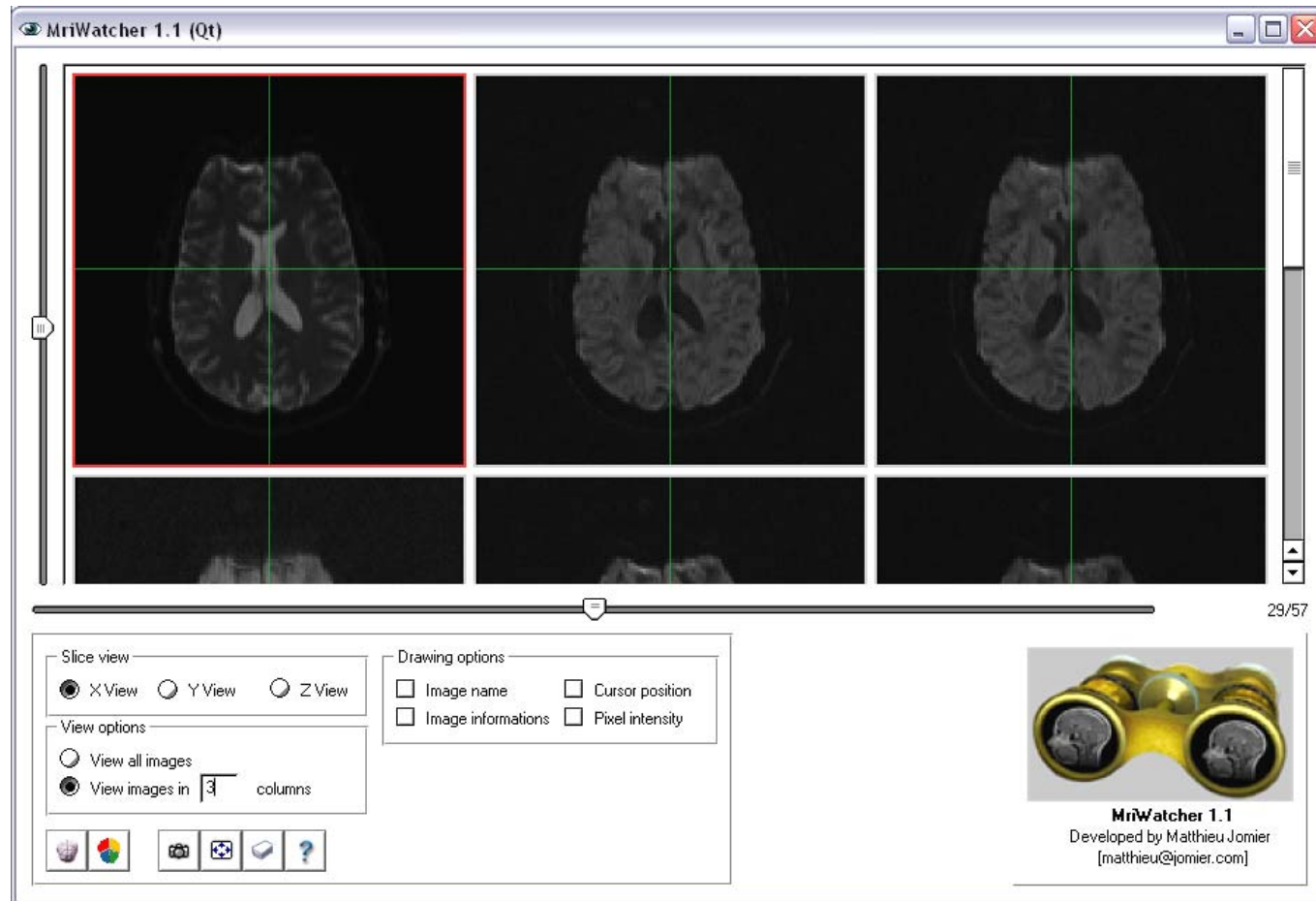
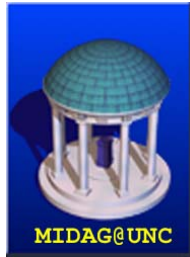
Connectivity II



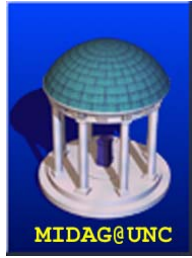
Connectivity III



MriWatcher (Matthieu Jomier, UNC, www.ia.unc.edu/dev)



Instructions MriWatcher



- Download tool and install (PC Windows), Windows self-extractable tool: www.ia.unc.edu/dev
- Load set of volumetric files, or mark files in file browser and drag into workspace.
- Supported formats: ITK input library: Analyze, gipl, Meta-Dicom)