

Overview of activities at the Visual Computing Lab

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Overview

- **Mission:** conduct research in advanced computational techniques concerning visual computing including computer vision, computer graphics, image and video processing, geometric modelling, and pattern recognition.
- **Sponsors:** National Science Foundation (NSF), the National Institute of Health (NIH), the National Security Agency (NSA), and the Pritzker Institute for Biomedical Engineering.

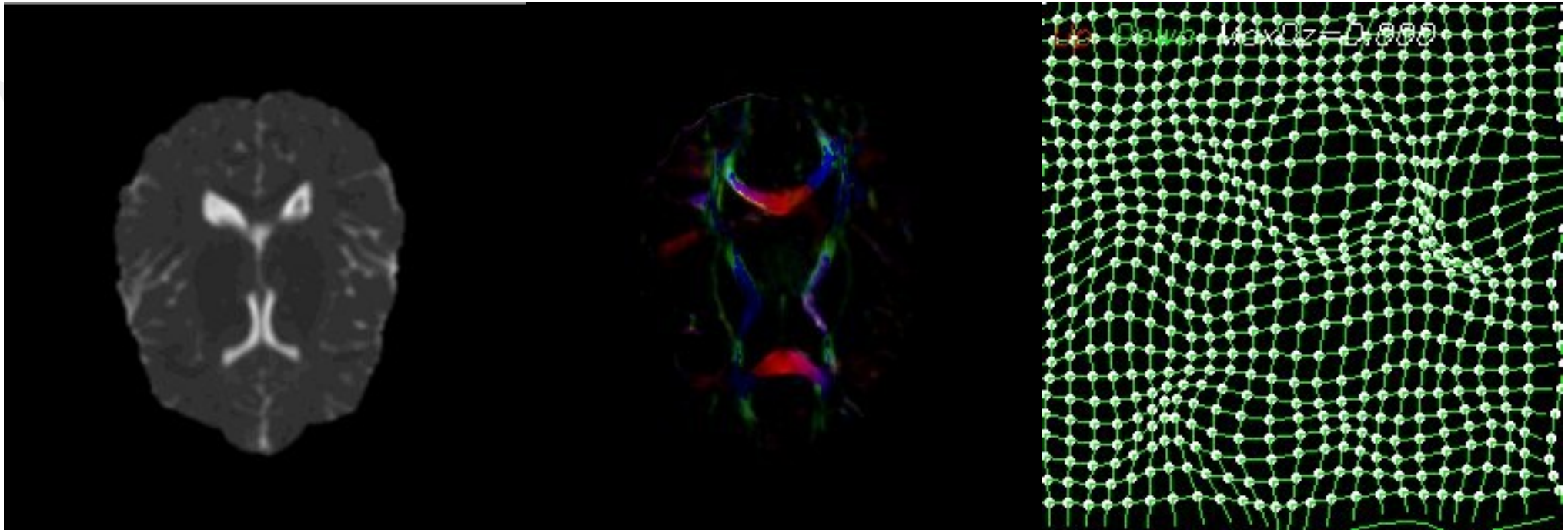
Current Research Projects

- Document imaging:
 - Complex document information processing
 - Document image analysis
- Medical imaging:
 - Diffusion tensor MRI volumetric registration
 - Nodule detection in thoracic CT scans
- Geometric modelling:
 - Curvature estimation
 - Adaptive mesh subdivision

Examples

- DT-MRI registration
- Adaptive mesh subdivision
- Complex document information processing
- More examples at <http://www.cs.iit.edu/~agam/>

DT-MRI Volumetric registration

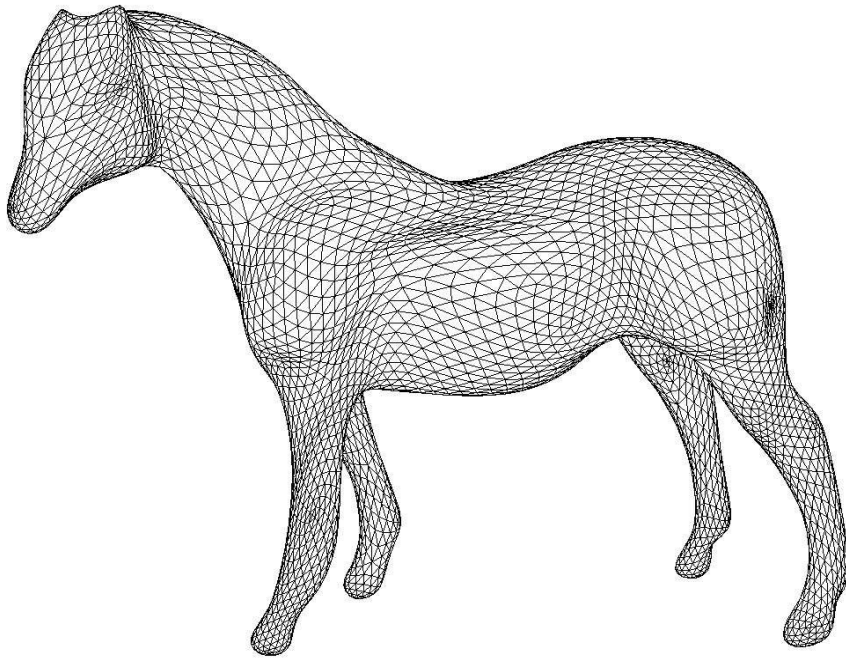


Tensor trace image

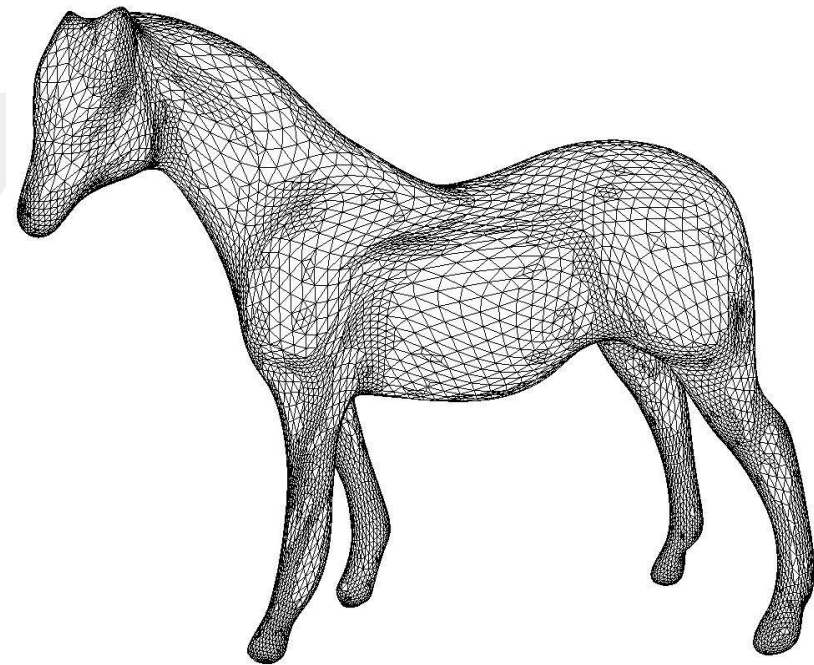
Tensor orientations

Deformation field

Adaptive mesh subdivision



Uniform subdivision



Adaptive subdivision

Complex document information processing

