### Graphical Introduction to My Research

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- Multivariate Splines
- Smooth Surface Reconstruction
- Spline Methods for Numerical PDEs
- Generalized Barycentric Coordinates
- Wavelets and Framelets
- Image Edge Extraction
- Sparse Solution to Underdetermined Linear System
- Matrix Completion and Compression
- Graph Clustering
- Graph Sparsification
- Phase Retrieval

#### **Blood Vessel Data**

#### Spline Surface of Blood Vessel Data

#### Spline Surface of Blood Vessel Data 2

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#### A Set of Medical Data

### Box Splines for Edges of Heart Images

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## Region of Interest

### Spline Approximation of the Solid of Interest

#### A Set of Brain Cross Sections

## Box Splines for Tissue Separation

## Splines for Brain Reconstruction

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### Image Reconstruction

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## Adaptive Triangulations

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#### Thank You





# Thank You Again

