Image Based Modeling Pipeline

- Image acquisition & processing (image processing)
- Identification of structures (image processing and segmentation)
- Fitting of geometric surfaces (geometric modeling)
- Generation of volume model (meshing)
- Application of tissue parameters/boundary conditions and computation (simulation, estimation)
- Verification & evaluation of results (simulation, error visualization)

- Meshless approaches
- Surface based approaches
- Boundary conditions
- Measured Data

- Defibrillation
  - Model of human torso with an ICD

- Atrial Fibrillation
  - Model of the right atrium with measurement electrode locations

- Epilepsy
  - Model of human skull and brain

- Myocardial Ischemia
  - Model of a heart with ischemic tissue

- Other Examples
  - Model of human skull and brain
  - Model of a heart with ischemic tissue

- Forward/Inverse Toolkit
  - www.sci.utah.edu

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- Seg3D
- BioMesh3D
- map3d
- Forward/Inverse Toolkit