

Interactive Computer Graphics 2018

TERM PROJECT LISTING

1. Animation of articulated figures (linked)
2. Rigid body animation (Newton's laws)
3. A viewing system for curved surfaces with textures (curves and patches)
4. *Two pass or Radiosity method (basic source codes available)
5. Ray tracing method for a room / many teapots with different materials (basic source codes available)
6. Volume rendering for a set of tomography slides (我的大腦 MRI scan, 醫院資料 etc.)

例如: 1. 從我的大腦 MRI scan, 轉 3D 血管

2. 從 2D X 光片, 轉 3D Model (膝蓋, 腿骨)

7. Image morphing (2D)
8. Sketch system for animation (Teddy system)

9. Oil painting and water color effects for images
(non-photorealistic rendering)
10. 3D morphing and animation with skeleton mapping
11. Motion retargeting (motion of cats likes that of a human)
12. Hardware Cg acceleration research and applications
13. Beautifying Images (Color harmonization, face beautification)
14. Others—Human Computer Interface, Installation Arts, Water Rendering etc.
15. 360 Video, Omni-directional stereo video
(360 VR video)

Reference papers available.