

Études Approfondissement Option Multimédia

Polytech-Grenoble

1er semestre 2008

Etudes Approfondissements

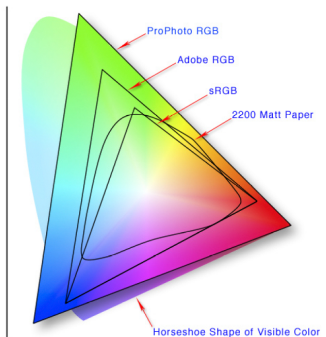
- Vendredi, 15 :15 - 16 :45.
- Travail en Binome sur un sujet touchant le multimedia.
- Presentation de 30 min par binome.
- Compte rendu (10 pages environ).

- New *geometry-shaders* applications
- CUDA programming
- ...



Color Space

- Multimedia-projectors, gamut-mapping
- Human Perception
- ...



Fluid-Animation in Video-games

- sprites, reflection, ...
- ocean waves, rain, ...
- Use of shaders
- ...



AI in Video-Games



Quantic Computers

- Principles, state of the art, possible use, ...

Computer rendering methods

- Ray-tracing, Projection
- Global Illumination, photon mapping, BRDF, BSSRDF, ...



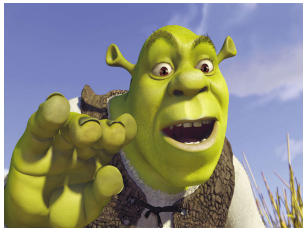
Video Encoding and Compression

- MPEG standard,
- ...



Character Animation in Video-Games

- Real-time deformations methods (skeleton, key-frames, spatial deformations, ...)



Augmented Reality

- Haptic Devices
- 3D Perception
- ...



Real-time Embedded systems

- scheduling, Windows Embedded, micro-linux, ...