Realistic Image synthesis

Ondra Karlík
My background

• Past
  • Ing. at FEE CTU – Computer graphics
  • Hobby 3D computer graphics artist

• Present
  • Ph.D. Canditate - Charles university
  • Field of study: Realistic image synthesis
  • *Corona renderer* development
3D computer graphics art

- Use specialized software to get nice images (renders) from models
- Usage: movies, visualizations, animation, ...
Realistic image synthesis

• Goal: create software for these tasks
• Method used: light propagation simulation
• Easy part:
  • How
• Hard part:
  • Efficiency
  • Speed
My research

- Focusing on the hard part – efficiency in “hard” scenes
  - Complicated geometry, materials, ...
- Current project
  - Adapt work distribution to light distribution in scene
  - With Jirka Vorba, Jaroslav Křivánek
The future

- If success: “hard” scenes eliminated → more freedom to artists
- Target publication venues: SIGGRAPH, Eurographics