Introduction

• Martin Šik

• Masters student at Faculty of Mathematics and Physics of Charles University

• Study Program: Computer Science

• Focus: Computer Graphics
Particle Systems

• Bachelor thesis

• Simulation of natural phenomena in CG: fire, liquids, clouds, explosions etc.

• Fast Interaction between particles

• Off-line/On-line simulation
Stubble Software Project

- Hair modeling
- Autodesk Maya
- Automatic hair generation
- RenderMan, mentalray
Hair generated by Stubble
Current Research: Mesh Sampling

- Random hair roots placement

- Rendering

- Many more applications in computer graphics..

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New Mesh Sampling Algorithm

• Samples density defined by texture

• Up to 33 times faster than existing techniques

• CESC 2012 paper

• Further improvements, cooperation with Jaroslav Křivánek

• Goal: EGSR 2012
Results