Caltech
Department of
Computer
Science

CS 101.3
Hacking the GPU
Class Lecture

Monday,
October 7th, 1pm
Lauritsen 123

How long can Graphics Chips exceed Moore's Law?

Matthew Papakipos of nVidia Corp.
Director of Architecture

A few short years ago, single-chip PC 3D graphics solutions arrived on the market at performance levels that rivaled Professional Workstations with multi-chip graphics pipelines. Since then, graphics performance has grown at a rate approaching doubling every 6 months, far exceeding Moore's Law.

How is this possible? Will it be sustainable? There is evidence that this geometric performance growth is not only possible, but inevitable. The reason lies in the way that Graphics Architectures have evolved, and the fact that this evolution has taken a very different path than CPUs. As GPUs become more flexible, powerful, and programmable, their architecture is well-suited to embrace the parallelism that is inherent in graphics, shading, and other hard computational problems.

Hosted by: Multi-Res Modeling Group