

laden gemeinsam zum

GASTVORTRAG

Gernot Ziegler
NVIDIA, Germany**“Accelerating GPGPU applications with
CUDA C / CUDA C 4.0 overview”****Abstract:**

GPU are intensely used in computer graphics applications, and general purpose computing on the GPU (aka GPGPU) have shown the tremendous potential of SIMT (Single Instruction, Multiple Thread) for all kinds of computational applications outside the original application domain. This talk presents how an original GPGPU application (Marching Cubes, implemented in pure OpenGL), could be accelerated further using CUDA C by allowing more low-level access to the hardware and some special features of the GPU computing mode. Beyond this, there will be room for discussion on advanced CUDA C programming on Fermi hardware, including an overview over recent CUDA C 4.0 API features.

Biography:

Gernot Ziegler (Dr.Ing.) is an Austrian engineer with an MSc degree in Computer Science and Engineering from Linköping University, Sweden, and a PhD from the University of Saarbrücken, Germany. He pursued his PhD studies at the Max-Planck-Institute for Informatics in Saarbrücken, Germany, where he specialized in GPU algorithms for computer vision and data-parallel algorithms for spatial data structures. As a member of NVIDIA's DevTech-Compute team, Gernot now consults in high performance computing on graphics hardware.

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