Invited Talk

How to use GPGPU for Graphics

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ABSTRACT

The term General Purpose Graphics Processing Unit (GPGPU) describes the use of graphics processors not for game graphics, but for heavy numerical computation, such as finite element simulation. Using GPGPU operation for alternative graphics pipelines is hard, because the built-in task-scheduling of GPGPU languages is restricted to problems with a simple structure. This talk describes a research project ongoing at Graz University of Technology aimed at efficient GPGPU execution of arbitrary real-time graphics pipelines. It will cover the GPGPU scheduling framework and three case studies built with it: recursive Reyes, volume rendering with irradiance caching and procedural geometry generation.

Time and Place

Tuesday, 24th June 2014, 09:15
Room 001
Albert-Einstein-Straße 22, 18059 Rostock