

# GPU COMPUTING TUTORIAL

8 MAY 2009

WASP TEACHING LABORATORY, UWA



Over the past decade, advances in graphics processing units (GPUs) have seen them evolve into highly generalised parallel processors that can be applied to a wide range of computational problems. Impressive performance increases have been observed using GPUs in many computational applications including molecular dynamics, astrophysics simulations, pattern and sequence matching, three-dimensional imaging, and many more.



Following the GPU workshop, Mark Harris will present a hands-on tutorial session, which will give attendees the opportunity to experience GPU programming with CUDA.

The tutorials will present examples important for understanding and optimizing GPU programs. **You must attend the GPU Workshop on 7 May to attend this tutorial session.**

Attendance is FREE for all participants and limited to researchers, academics and students associated with iVEC partners which are Curtin University, Edith Cowan University, Murdoch University, UWA, and CSIRO. Contact Rosie Radica ([rosie.radica@uwa.edu.au](mailto:rosie.radica@uwa.edu.au)) to register with your name, organisation, occupation, associated iVEC Partner, and any dietary requirements. Please use the header – GPU Tutorial – in email sent to register. Sign-in on the day will be from 8:30am. Please only register if you are genuinely planning to attend.



## Presenter: Mark Harris, PhD

Mark Harris is a Senior Developer Technology Engineer at NVIDIA, where he works with developers around the world on software for computer graphics and high-performance computing. His research interests include parallel algorithms, general-purpose computation on GPUs, physically based simulation, real-time rendering, and gastronomy. Mark earned his Ph.D. in computer science from the University of North Carolina at Chapel Hill in 2003 and his B.S. from the University of Notre Dame in 1998. Mark founded and maintains GPGPU.org, a web site dedicated to general-purpose computation on GPUs. Mark has recently moved to Brisbane after living in the United Kingdom for five years.

**Where:** WASP Teaching Laboratory, UWA  
Ground Floor, Physics Building

**Times:** 9am - 1pm

**Map:** [www.wasp.uwa.edu.au/home/location](http://www.wasp.uwa.edu.au/home/location)

