

Challenges Drive Innovation













GPU Focus Session HPEC 2007

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Advantages



- Bandwidth of GDDR memory
- Dollars per FLOP

Challenges



- Boards instead of chips (for high end GPUs)
- Rack density
- Not every algorithm (NVIDIA's Parallel Data Cache helps)
- Driver/tools support only for x86 desktops (ATI's recent release of documentation helps)

Trends



Potential architectural convergence with Cell

Papers



- An invited talk from ATI
- A talk about NVIDIA's CUDA from a defense prime
- An FFT on GPU talk from Duke
- An exploration of GPU acceleration of STAP from SAIC