



NMath Premium with Adaptive Bridge™

From CPU to GPU: a comparative case study

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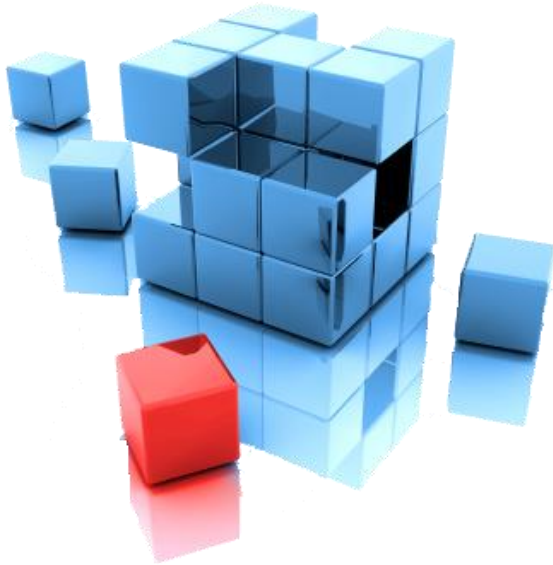
Technology Evangelist

GPU Technology Workshop

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Suntec Singapore Convention and Exhibition Centre

NMath Libraries



- Components for mathematical, engineering, scientific, and financial applications on the Microsoft .NET platform
- Easy-to-use object-oriented APIs
- Leverages Intel Math Kernel Library (MKL) for performance and reliability
- Optional NVIDIA GPU acceleration

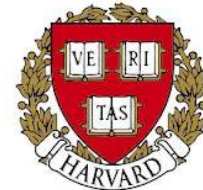
Customers in many domains...



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Schlumberger



...and 50 countries



GE Healthcare



Summary

- **NMath Premium** dynamically maximizes use of available hardware (multiple CPU cores, GPU hardware)
- **NMath Premium** leverages NVIDIA CUDA architecture to accelerate numerical computations (2-10x relative to CPU)
- **NMath Premium** addresses the biggest barriers to adoption of GPUs:
 - No GPU programming experience is required
 - No changes are required to existing NMath code
 - Build once, deploy everywhere

More Information

- 30-day Free Trial

<http://centerspace.net/products/nmath-premium>

- Whitepaper

<http://www.centerspace.net/doc/NMath/whitepapers/NMath.Premium.Benchmarks.pdf>

- Blog

<http://www.centerspace.net/blog/category/nmath-premium/>

- Amazon EC2 instance available for testing.
- Contact gpu@centerspace.net with any questions.