



OpenCL news

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IWOCL

INTERNATIONAL WORKSHOP ON OPENCL

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OpenCL

The 2nd International Workshop on OpenCL™ (IWOCL - “eye-wok-ul”) is an annual meeting of users, researchers, developers and suppliers to share OpenCL best practise and to promote the evolution and advancement of the OpenCL standard. The workshop is open to anyone who is interested in OpenCL.

Call for Submissions **NOW OPEN**

IWOCL is the premier forum for the presentation and discussion of new designs, trends, algorithms, programming models, software, tools and ideas for OpenCL. IWOCL is now accepting submissions from industry experts and academia.

- Unpublished Technical Papers
- Presentations on Innovative use of OpenCL
- Poster Presentations
- Tutorials and Workshops

Hands On OpenCL released

Hands On OpenCL

Created by
Simon McIntosh-Smith
and Tom Deakin



Free, open source
training course:

- Slides
- Exercises
- Solutions
- C / C++ / Python



<https://github.com/HandsOnOpenCL/Lecture-Slides/releases>

<https://github.com/HandsOnOpenCL/Exercises-Solutions/releases>

clMath: An Open Source BLAS and FFT Library for OpenCL

by SCOTT on AUGUST 13, 2013

in [ANNOUNCEMENTS](#), [OPENCL](#)

If you're reading our blog, BLAS and FFT libraries likely form an important basis for your work. For instance, BLAS and FFT libraries are used in some of ArrayFire's higher-level functions for linear algebra, signal processing, and image processing.

Today, OpenCL is getting a big boost in BLAS and FFT library availability. [AMD has announced](#) a bold and generous move to contribute back to the OpenCL community by open sourcing its APPML BLAS and FFT OpenCL libraries.

At AccelerEyes, we have used AMD's OpenCL libraries in the past within our higher-level ArrayFire library. These libraries are the best BLAS and FFT OpenCL libraries available anywhere. We are thrilled to now join AMD and the open source community in maintaining and improving these libraries for the benefit of all.

The source is [now available as "clMath" on GitHub](#). The clMath libraries include [clBLAS](#) and [clFFT](#). The libraries will run on any [OpenCL-conformant device](#). They will benefit all OpenCL developers, spanning from mobile apps to supercomputing codes.



<https://github.com/clMathLibraries/clBLAS>

<https://github.com/clMathLibraries/clFFT>

cIMAGMA LAPACK library updated

MAGMA

News

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cIMAGMA 1.1 Beta Released

2013-11-17

cIMAGMA 1.1 Beta is now available. cIMAGMA is an OpenCL port of the MAGMA library. This release adds the following new functionalities:

- MultiGPU implementations for the LU, QR, and Cholesky factorizations;
- LU, QR, and Cholesky factorizations and solvers with CPU interfaces;
- Multi-buffer LU, QR, and Cholesky factorizations that overcome size limitations for single memory allocation, enabling the solution of large problems;
- Performance improvements.



<http://icl.cs.utk.edu/magma/>



ArrayFire v2.0 is [now available for download](#). The second iteration of our free, fast, and simple GPU library now supports both CUDA and OpenCL devices.

Major Updates

- ArrayFire now works on OpenCL enabled devices
- New and improved [documentation](#)
- Optimized for new GPUs—NVIDIA Kepler (K20) and AMD Tahiti (7970)

New in ArrayFire OpenCL

- Same APIs as ArrayFire CUDA version
- Supports both Linux and Windows
- Just In Time Compilation (JIT) of kernels
- Parallel for: [gfor](#)
- Accelerated algorithms in the following domains
 - [Image Processing](#)
 - [Signal Processing](#)
 - [Data Analysis and Statistics](#)
 - [Visualization](#)
 - [And more](#)



More recent OpenCL news

- BSC's Paraver & Extrae added OpenCL profiling
- Altera demonstrates OpenCL on FPGA
- Xilinx announces OpenCL support
- Student cluster competition entry used OpenCL on AMD APUs to achieve high performance/watt
- IBM demos OpenCL on POWER8-FPGA
- OpenCL also on booths from Intel, AMD, ARM, SnuCL, TI, ...
- AIDA64 adds new OpenCL GPGPU Benchmark Suite:
 - <http://betanews.com/2013/11/19/aida64-adds-new-opengl-gpgpu-benchmark-suite-and-dedicated-network-audit-product/>

Apple's new Mac Pro



"And for those of you who use OpenCL - and you all know you should," he told the assembled developers, "this delivers seven teraflops of compute power to your applications."

- Phil Schiller, VP, Apple

7 TFLOPS of OpenCL compute performance