IWOCL history

Los Alamos
May 2012

Stanford
May 2015

Atlanta
May 2013

Bristol, UK
May 2014

Vienna
May 2016
IWOCL 2015

• ~100 delegates (40 at IWOCL 2013!)
• Attendees from 14 different countries
• 30 different companies represented
• 7 different academic institutions
• 27 submissions, 19 accepted
• 5 workshops proposed, 4 accepted
Conference Sponsors

We would like to thank the following companies who have done so much to help make IWOCL 2015 the success that it has been and we look forward to 2016!
OpenCL momentum building

- More OpenCL implementations released:
  - 2.0 implementations from Intel, AMD
  - OpenCL 2.1 provisional with C++ kernel language
  - 1.2 from Nvidia (hurrah!)
- New Standard Portable Intermediate Representation (SPIR-V) released
- New high-level, single-source programming model, SYCL 1.2, released
- More tutorials online (e.g. HandsOnOpenCL)
- More tools appearing (Oclgrind, profilers, debuggers, ...)

University of Bristol
OpenCL momentum building

Papers mentioning parallel programming languages.
Data according to Google Scholar (May. 2015)

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## Today’s Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>9:30</td>
<td>Opening Address</td>
<td>Simon McIntosh-Smith</td>
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<tr>
<td>9:30-9:50</td>
<td>Leveraging OpenCL to Create Differentiation</td>
<td>Salvatore De Dominicis, Imagination Technologies</td>
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<td>9:30-10:00</td>
<td>A Look at the OpenCL 2.0 Execution Model</td>
<td>Benedict Gaster, University of West of England.</td>
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<td>9:30-10:00</td>
<td>Exploring the Features of OpenCL 2.0</td>
<td>Northeastern University</td>
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<td>9:30-10:00</td>
<td>Achieving Performance with OpenCL 2.0 on Intel Processor Graphics</td>
<td>Michael Stoner. Intel</td>
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<td>11:00-11:30</td>
<td>Morning Coffee Break</td>
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<tr>
<td>11:30-12:00</td>
<td>Heterogeneous Computing: the rise of open programming frameworks</td>
<td>JC Baratault, AMD</td>
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<td>11:30-12:00</td>
<td>Mapping C++ AMP to OpenCL / HSA</td>
<td>Jack Chung, Curtis Davis and Jayram Ramachandran, MulticoreWare.</td>
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<td>11:30-12:00</td>
<td>Update on the SYCL for OpenCL Open Standard to Enable C++ Meta Programming</td>
<td>Andrew Richards, Codeplay</td>
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<tr>
<td>11:30-12:00</td>
<td>Kernel Composition in SYCL</td>
<td>Univ. Bath, Univ of the West of Scotland and Codeplay</td>
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<td>13:00-14:00</td>
<td>Lunch</td>
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<td>14:00-14:30</td>
<td>GPU Compute on Snapdragon</td>
<td>Eric Demers, Qualcomm Inc.</td>
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<td>14:00-14:30</td>
<td>Oclgrind: An Extensible OpenCL Device Simulator</td>
<td>James Price and Simon McIntosh-Smith. University of Bristol</td>
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<td>14:30-15:00</td>
<td>Asynchronous OpenCL/MPI numerical simulations of conservation laws</td>
<td>Univ. Strasbourg, Inria, IRMIA and AxesSim</td>
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<td>14:30-15:00</td>
<td>The Great Beyond: Higher Productivity, Parallel Processors and the Extraordinary Search for a Theory of Expression</td>
<td>Alan Ward. Texas Instruments</td>
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<td>15:30-16:00</td>
<td>Afternoon Break</td>
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<td>16:00-17:00</td>
<td>CHO: Towards a Benchmark Suite for OpenCL FPGA Accelerators</td>
<td>Geoffrey Ndu, University of Manchester</td>
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<td>16:00-17:00</td>
<td>Performance Optimization for a SHA-1 Cryptographic Workload Expressed in OpenCL for FPGA Execution</td>
<td>Spenser Gilliland and Fernando Martinez Vallina, Xilinx.</td>
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<td>16:00-17:00</td>
<td>IWOCL 2015 wrap and look forward to IWOCL 2016!</td>
<td>Simon McIntosh-Smith</td>
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Final words

• Use social media to promote IWOCL
  • Twitter hashtag:  #IWOCL
  • Follow:  @IWOCL

• The IWOCL Twitter feed will retweet your posts

• Sign up for regular OpenCL newsletter:
  • http://www.iwocl.org/opencl-newsletter/
IWOCL wrap-up – a call to arms!

• Tell your vendors you need OpenCL!
• Come to IWOCL 2016 – Vienna next May
  • Submit a paper, workshop, poster…
  • Be part of the committee
• Sign up for the OpenCL newsletter & Twitter:
  • http://www.iwocl.org/opencl-newsletter/
  • @IWOCL
• Slidesets will appear on the website as soon as we have them
• Formal proceedings will appear shortly afterwards