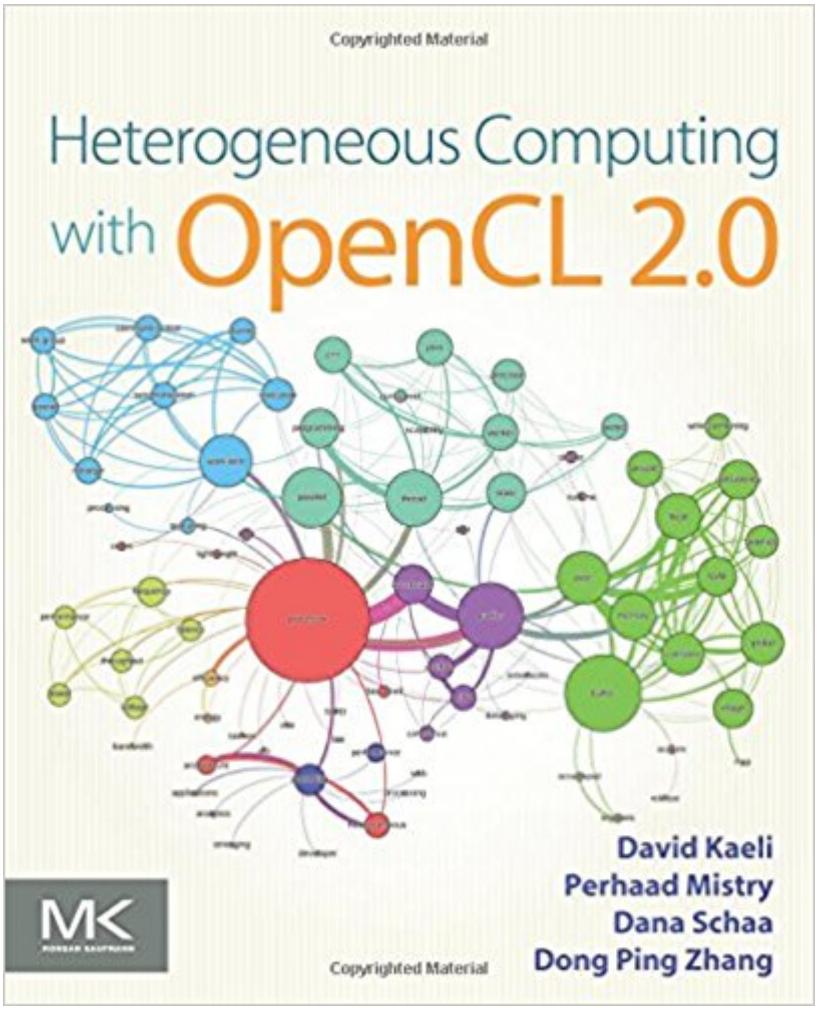
# Heterogeneous Computing With OpenCL 2.0



## Synopsis

Heterogeneous Computing with OpenCL 2.0 teaches OpenCL and parallel programming for complex systems that may include a variety of device architectures: multi-core CPUs, GPUs, and fully-integrated Accelerated Processing Units (APUs). This fully-revised edition includes the latest enhancements in OpenCL 2.0 including:

## Book Information

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Average Customer Review: 4.0 out of 5 stars 1 customer review

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## Customer Reviews

"...one of the best sources to start with OpenCLÃ¢â ¬Â|If you need to start writing parallel programs but are intimidated by the complexity, this book will not leave you any excuses!" --Computing Reviews

Heterogeneous Computing with OpenCL 2.0 teaches OpenCL and parallel programming for complex systems that may include a variety of device architectures: multi-core CPUs, GPUs, and fully-integrated Accelerated Processing Units (APUs). This fully-revised edition includes the latest enhancements in OpenCL 2.0 including: Ã¢â ¬Â¢ Shared virtual memory to increase programming flexibility and reduce data transfers that consume resources Ã¢â ¬Â¢ Dynamic parallelism which reduces processor load and avoids bottlenecks Ã¢â ¬Â¢ Improved imaging support and integration with OpenGL Ã¢â ¬Â¢ Pipe memory which can be optimized for producer/consumer communication Key features include: Updated content to cover the latest developments in OpenCL 2.0, including improvements in memory handling, parallelism, and imaging support Explanations of

principles and strategies to learn parallel programming with OpenCL, from understanding the abstraction models to thoroughly testing and debugging complete applications Example code covering image analytics, web plugins, particle simulations, video editing, performance optimization, and more Multiple examples and case studies that demonstrate a range of fundamental programming techniques on current system architectures  Designed to work on multiple platforms, OpenCL will help you more effectively program for a heterogeneous future. Written by leaders in the parallel computing and OpenCL communities, this book explores memory spaces, optimization techniques, extensions, debugging and profiling. Multiple case studies and examples illustrate high-performance algorithms, distributing work across heterogeneous systems, embedded domain-specific languages, and will give you hands-on OpenCL experience to address a range of fundamental parallel algorithms.

Looks like it will be useful once I get started with a compatible C++ compiler.