

Accepted Manuscript

High productivity multi-device exploitation with the Heterogeneous Programming Library

Moisés Viñas, Basilio B. Fraguera, Diego Andrade, Ramón Doallo

PII: S0743-7315(16)30144-7

DOI: <http://dx.doi.org/10.1016/j.jpdc.2016.11.001>

Reference: YJPDC 3554

To appear in: *J. Parallel Distrib. Comput.*

Received date: 27 July 2015

Revised date: 16 June 2016

Accepted date: 1 November 2016



Please cite this article as: M. Viñas, B.B. Fraguera, D. Andrade, R. Doallo, High productivity multi-device exploitation with the Heterogeneous Programming Library, *J. Parallel Distrib. Comput.* (2016), <http://dx.doi.org/10.1016/j.jpdc.2016.11.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights of

High Productivity Multi-device Exploitation with the Heterogeneous Programming Library

- Three approaches to develop multi-device heterogeneous applications are proposed
- Easy, efficient and coherent subarray usage for kernels and movements is implemented
- Simple argument annotations allow to easily split kernels and arrays among devices
- Accurate automatic workload balancing is provided by means of a friendly API
- The results are very promising both in terms of performance and programmability

Download English Version:

<https://daneshyari.com/en/article/4951629>

Download Persian Version:

<https://daneshyari.com/article/4951629>

[Daneshyari.com](https://daneshyari.com)