

PUMPS Summer School 2014

Objectives

- Instructors Wen-mei Hwu (University of Illinois) and David B. Kirk (NVIDIA), co-authors of [“Programming Massively Parallel Processors, A Hands-on Approach”](#), will provide students with knowledge and hands-on experience in developing applications software for many-core processors, such as general purpose graphics processing units (GPUs).
- By the end of the summer school, participants will:
 - Be able to design algorithms that are suitable for accelerators.
 - Understand the most important architectural performance considerations for developing parallel applications.
 - Be exposed to computational thinking skills for accelerating applications in science and engineering.
 - Engage computing accelerators on science and engineering breakthroughs.

Requirements

Prerequisites for the course are:

C, C++, Java, or equivalent programming knowledge.

Skills in parallel programming will be helpful.

Some experience in CUDA programming will be considered very valuable for application consideration.

Visit the [Previous Material](#) section at the PUMPS website and spend some time [self-learning](#). You can also consider attending [PATC course: Introduction to Programming in CUDA \(2 to 6 June\)](#)



[Programming and Tuning Massively Parallel Systems](#)

The fifth edition of the Programming and Tuning Massively Parallel Systems summer school (PUMPS) is aimed at enriching the skills of researchers, graduate students and teachers with cutting-edge technique and

hands-on experience in developing applications for many-core processors with massively parallel computing resources like GPU accelerators.

Summer School Co-Directors: **Mateo Valero** (BSC and UPC) and **Wen-mei Hwu** (University of Illinois at Urbana-Champaign)

Organized by:

Barcelona Supercomputing Center ([BSC](#))

University of Illinois at Urbana-Champaign ([University of Illinois](#))

Universitat Politècnica de Catalunya ([UPC](#))

HiPEAC Network of Excellence ([HiPEAC](#))

PUMPS is part of this year [PRACE Advanced Training Centre program](#)

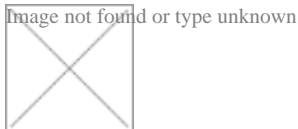
[SUBMITT the PUMPS Application Request Form](#)

Comments:

Please apply to the summer school by submitting the PUMPS Application Request Form. Please note that there will be a selection process.

For more information please visit [PUMPS website](#)

[Materials](#)



The course materials are published on the [PUMPS website](#)

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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