

- ✓ What will *tomorrow's supercomputers* look like?
- ✓ How to *port* your application to *GPUs* (without porting it)?
- ✓ What should I do to use tomorrow's *supercomputers* *efficiently*?
- ✓ Why *thinking parallel* will make all the difference?
- ✓ Shall we think in *local* or *global* address spaces?
- ✓ Do we need *data stream* processing to cope efficiently with *many-core* CPUs?
- ✓ What to think of the new *languages* ... Fortress, Chapel, X10, UPC, Co-Array Fortran?
- ✓ Do you need to learn *VHDL* when using *FPGAs*?
- ✓ How to define an *FPGA's peak performance*? (and how to cheat doing so?)
- ✓ How can *FPGAs* running at 100MHz *outperform* CPUs running at 3GHz?
- ✓ Does *C-to-Hardware* work?
- ✓ What *DEISA/PRACE/HPCS* mean?
- ✓ Can your *playstation* save the world?
- ✓ Why should supercomputers care about the *climate change*?
- ✓ Do you think *Roadrunner* is a bird and *Maxwell* is a Scottish physicist?
- ✓ How to improve your *data analysis* for better signal/background discrimination?
- ✓ How to use recent data analysis techniques (*Neural Network, Decision Tree,...*)

All the answers at **iCSC**



CERN
School of Computing

inverted CSC-2008

"Where students turn into teachers"

3-5 March 2008, CERN*

Register now to get the printed booklet
Per-lecture attendance possible

► **Towards Reconfigurable High Performance Computing**

- ✓ Multi-core, advanced Architectures
- ✓ Multi-core at work
- ✓ Special-Purpose Accelerators
- ✓ Multicores at work: CELL Processor
- ✓ Programmable Logic
- ✓ Reconfigurable HPC: theory, tools
- ✓ Parallel Programming Paradigms
- ✓ Hybrid Programming

► **Special topics**

- ✓ Advanced aspects of data analysis
- ✓ Scalable Image and Video coding

Advanced topics, rarely taught at CERN before

Lecturers

All former CSC2006/2007 students

Iris Christadler Leibniz Supercomputing Centre

Jose Dana Perez CERN

Alfio Lazzaro University of Milan, INFN Milan

Manfred Muecke University of Vienna

Andrzej Nowak CERN

<http://cern.ch/csc>

* IT Amphitheatre, building 31

Free attendance but registration recommended