

Yves Robert

Title: Algorithm design and scheduling techniques for clusters and grids

Abstract:

In this talk we provide several examples to illustrate key algorithmic concepts required to efficiently execute applications on clusters and grids. The idea is to give a lively exposition of the necessity to inject whatever static knowledge is available into the design of typical applications, such as master-slave tasking, numerical kernels, and job workflows. We claim that this is the key to an efficient deployment of these applications onto large-scale distributed computational platforms. The talk will proceed through examples to explain how to cope with resource selection, memory constraints, platform heterogeneity, etc.

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Bio:

Yves Robert is a full professor in the Computer Science Laboratory LIP at ENS Lyon. He is the author of four books, 100+ papers published in international journals, and 120+ papers published in international conferences. His main research interests are scheduling techniques and parallel algorithms for clusters and grids. Yves Robert served on many editorial boards, including IEEE TPDS. He was the program chair of HiPC'2006 in Bangalore and of IPDPS'2008 in Miami. He is a Fellow of the IEEE, and a Senior Member of Institut Universitaire de France.