Chairs' Welcome

It is our great pleasure to welcome you to the 3rd ACM SIGPLAN Workshop on Functional High-Performance Computing. FHPC 2014 brings together researchers who explore declarative high level programming technology in application domains where large-scale computations arise naturally, and high performance is essential. The workshop is in its third year. Our goal is to establish FHPC as a regular annual forum for researchers interested in applying functional programming techniques in the area of high-performance computing. Functional programming is increasingly recognized as presenting a nice sweet spot between expressiveness and efficiency for parallel programming, reconciling execution performance with programming productivity.

Making FHPC'14 happen depended on a number of people and organizations, which we would like to acknowledge here. We thank the authors for providing the content of the programme. We would like to express our gratitude to the programme committee, who worked very hard in reviewing papers and providing suggestions for their improvement. Special thanks go to ACM SIGPLAN and the ICFP workshop chairs for accepting our workshop proposal and being flexible with organizational matters.

The call for papers attracted 11 submissions. The number of submissions was a little disappointing, but the quality was reassuringly high. An international programme committee selected 10 contributions for publication. These papers cover a variety of topics. Some touch upon optimizing compilation techniques and programming techniques for GPU applications. Others consider patterns for distributed programming, the use of functional programming in a computational science application and compilation techniques for embedded and standalone languages.

In addition to the refereed contributions, FHPC'14 features an invited talk. Keshav Pingali from the University of Texas at Austin will propose a novel data-centric foundation for parallel programming called the operator formulation, in which algorithms are described in terms of unitary actions on data structures. The title of the talk is "Parallel Program = Operator + Schedule + Parallel Data Structure" and it is bound to be stimulating.

We have put together an exciting programme; we look forward to lively discussions during the third FHPC workshop, and a successful follow-up FHPC workshop at ICFP 2015.

Mary Sheeran and Ryan Newton
FHPC'14 Programme Chairs

Jost Berthold
FHPC'14 General Chair