



滝沢チーム研究代表者・滝沢寛之(東北大)が ISC'14 の Young and Bright HPC Researchers セッションで招待講演を行いました。滝沢チームのプロジェクト概要を紹介するとともに、現状と将来展望について講演しました。講演後に多数の方々から質問やコメントをもらうことができ、同プロジェクトの知名度を高めるとともに、今後の国際連携に向けて有用な議論をすることができました。

会議 : International Supercomputing Conference 2014, Congress Center Leipzig, Leipzig, Germany, June 22-26, 2014

題目 : Evolutionary Adaptation of HPC Applications to Revolutionary System Changes

概要 :

I will present our ongoing project that investigates how we can help to evolve existing HPC applications in the post-Peta scale computing era. Since the microprocessor clock frequency no longer increases and the system scale is limited by severe constraints such

as system power consumption, HPC people are exploring a new approach in order to keep exponential performance improvement. As a result, major system architectures can change revolutionarily. However, it is not affordable to rewrite an application code for every new system, so we often need to evolve an existing code. The goal of our research project is to establish a systematic way to help the software evolution. One of the main causes to overcomplicate the evolution is that most existing applications are already optimized and specialized for their target systems. Therefore, one important technical issue is how to separate such system-specific optimizations from application codes. In this presentation, I will talk about the concept and current status of our project.