



**The Hong Kong Polytechnic University  
Department of Applied Mathematics**

**Seminar  
On**

**HPC in CFD, Present Status and Its Perspective**

**by**

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**Abstract**

With the advent of supercomputers during recent decade both the world over and in China, the issue of high performance computation (HPC) has been put on the agenda of scientists in most disciplines. Since numerical simulation has become an effective approach in fluid flow studies, CFD, as a trial paradigm, naturally plays a pioneering role in this regard. Various CFD and computational mathematics principles are used to enhance accuracy and efficiency in computation up to the standard of HPC. In addition, physics-based approaches, validation and verification are emphasized for turbulent, vortex-dominant and multi-scale flows. Nowadays, we are still facing challenging problems of CFD applied in airplane design, environment prediction, enhancement of oil recovery etc. When HPC exhibits bright perspective, we would suggest a few proposals in future CFD education and relevant aspects.

**Date : Monday, 12 March, 2007**  
**Time : 11:00 a.m. – 12:00 p.m.**  
**Venue : Departmental Conference Room HJ610**  
**The Hong Kong Polytechnic University**

**\* \* \* ALL ARE WELCOME \* \* \***