



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

## **Colloquium**

**On**

**Investment Decision without Time Consistency**

**by**

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### **Abstract**

An investment problem in a dynamic financial market can be formulated as a control problem. When the objective of the investment problem is good enough, the optimal trading strategy for the investment problem starting from time 0 is still optimal for the same investment problem starting from any future time (i.e., the optimality is time consistent), hence we can use dynamic programming to find the optimal trading strategy. In this talk, I will show some examples where the "optimal" trading strategy determined at time 0 is not optimal for the problem in the future. I will then re-define the solution for this type of control problem, and apply the result to the mean-variance investment problem in a continuous time financial market.

**Date : 16 Aug, 2013 (Friday)**

**Time : 3:00 p.m. – 4:00 p.m.**

**Venue : HJ610, The Hong Kong Polytechnic University**

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