Music reading expertise:  
A tool to understand perceptual expertise, musical skills and the functional organization of the brain

Date:   October 19, 2010 (Tuesday)  
Time:   11:30 to 12:30 p.m.  
Venue:   Room 624, Knowles Building, HKU  
Speaker:  Dr. Wong Kwai Ling Yetta  
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Becoming a musician is challenging, as one has to efficiently integrate information from visual, auditory, somatosensory, motor and emotional domains during performance. While music reading is an essential skill to acquire in musical training, this visual skill has received little attention in the music literature. In this talk, I will review my recent work exploring how music reading expertise transforms the visual processes for musical notation. In the behavioral level, I will talk about two projects related to holistic processing and crowding, revealing how experts become highly sensitive to the relationship between musical notes, and yet retaining the ability to extract the identity of each note. These skills are likely central to the fast and accurate music reading performance in experts. In the neural level, I will describe fMRI and ERP data showing how the brain processes musical notes differently with experience, from the initial visual processes of notes within 40-60ms to a large-scale multimodal network of brain activations specialized for musical notes. I will end the talk by discussing how these findings provide useful information for the understanding of visual perceptual expertise (e.g. recognizing faces, words, etc.), musical skills and the functional organization of the brain.