

The University of Hong Kong Department of Psychology

Departmental Seminar

A Computational Theory of Human Perceptual Mapping

Date: October 18, 2011 (Tuesday)
Time: 11:30 a.m. to 12:30 p.m.
Venue: Room 624, Knowles Building, HKU
Speaker: Professor Albert Yeap
Director,
Centre for Artificial Intelligence Research,
AUT University, New Zealand

How do humans integrate successive views to form a perceptual map of their environment? That they do so is evident in that humans do not forget what was seen earlier when turning or moving forward. A simple solution that appeals to many researchers is the integration of successive views using a rigid mathematical transformation process. The latter tracks one's movement and position through space and produces a global map. Such a process, however, is problematic, both computationally and psychologically. This talk will discuss why and present a different solution to the problem and which I have developed recently. It is argued that the new approach provides an adequate explanation for many observations of human spatial behavior such as the change blindness phenomenon and why we perceive a stable world.