'The Simultaneous Type/ Serial Token Model of temporal attention and working memory encoding, with applications in brain-computer interaction and lie detection'

Date(s)	Tuesday 4th September 2012 (16:00-17:00)
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The Simultaneous Type/ Serial Token (STST) model [Bowman & Wyble, 2007] was developed as a theory of how attention is deployed through time and how working memory representations are formed. It provides a neural explanation of perceptual phenomena, particularly those observed using Rapid Serial Visual Presentation (RSVP), e.g. attentional blink, repetition blindness, temporal conjunction errors and perceptual episodes, e.g. see [Wyble et al., 2011]. Its activation dynamics have also been tied to the P3 event related potential component [Craston et al., 2009], which has been argued to be an electrophysiological correlate of conscious perception. I will describe the STST model and its behavioural and electrophysiological verification. Finally, I will highlight applications of these RSVP-P3 effects in brain computer interaction and lie detection. I will also discuss what I consider to be the motivation for computational modelling.