

Roxane J. Itier, University of Waterloo, Waterloo, Canada

## **The role of eyes and configuration in face perception and learning assessed by eye movement monitoring**

The way the human face is perceived and processed has been extensively studied in the past years using many different approaches such as behaviour, patient work, neuroimaging (PET/fMRI) and temporal imaging techniques (EEG/MEG). Although not a new technique, eye movement monitoring has recently regained interest in the study of human face perception. Past research has shown that the internal features of faces are explored more than the external features, with a predominant role of eyes.

In this talk I will present new eye tracking data further investigating the precise role of eyes and other facial features in face perception and learning. Subjects freely viewed human face photographs, presented four seconds upright or inverted with or without eyes. Face identities in each condition repeated over blocks without subjects knowing. We tracked the perception and exploration of these faces and the implicit learning over blocks by measuring the proportion of fixations landing in predefined areas of interest and fixation duration. We will discuss the implications of the findings for current views of face processing in normal controls and pathological populations.