Contribution ID: **25** Type: **Oral Presentation**

# Dynamics of Electrons Injected into the Inner Magnetosphere

*Wednesday, 11 July 2012 11:35 (20 minutes)*


## Abstract content <br>   (Max 300 words)

Energetic electrons are injected into the Earth's inner magnetosphere at the onset of the substorm expansion phase. The electrons proceed to drift eastward towards dawn. The drift process is dispersive, with the result that the injected population becomes spread out in energy and pitch angle. The changing anisotropy of the electron distribution can lead to the spontaneous generation of VLF emissions. Parallel simulations of electron dynamics in the Earth's magnetosphere are used to model the evolution of the injected electron population. The results of the simulations are compared to geosynchronous satellite observations.


## Apply to be<br> consider for a student <br>   award (Yes / No)?

yes

## Level for award<br> (Hons, MSc, <br>   PhD)?

PhD

## Main supervisor (name and email)<br>and his / her institution

Andrew B. Collier, collierab@gmail.com
SANSA Space Science, Hermanus, South Africa

## Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

YES


**Primary author:** Mrs NEMAIR, Mahassin A. A. (School of Chemistry and Physics, University of KawZulu-Natal, Durban 4000, South Africa)

**Co-author:** Dr COLLIER, Andrew B. (Andrew B. Collier, SANSA Space Science, Hermanus, South Africa)

**Presenter:** Mrs NEMAIR, Mahassin A. A. (School of Chemistry and Physics, University of KawZulu-Natal, Durban 4000, South Africa)


**Session Classification:** Space Science

**Track Classification:** Track D2 - Space Science