

## **NEW COSMIC RAY ELECTRON TO POSITRON RATIOS IN THE HELIOSPHERE**

M.S.Potgieter and U.W.Langner  
Potchefstroom University for CHE

The heliospheric modulation of cosmic rays disguises the true spectral form of the local interstellar spectra for all cosmic ray species below  $\sim 10$  GeV. The lower the energy, the more uncertain they seem to become which is especially true for cosmic ray electrons. Recent modeling of the propagation of cosmic rays through the Galaxy gives the interstellar spectrum for positrons more reliably than before. Using this information, and recent computations of the electron interstellar spectra, the electron to positron ratios are computed with a comprehensive numerical shock-drift modulation model for a simulated heliosphere. These results can be of use for future missions to the outer heliosphere and beyond, and may assist in establishing the local interstellar spectra more accurately for cosmic ray electrons and positrons.