

Analysis for Variabilities Present in Different Components of Earth System Science

at

Emerging Trends in Ocean Observation and Ocean Data Analysis

4-15 July 2016
INCOIS

(GROUP – 1)

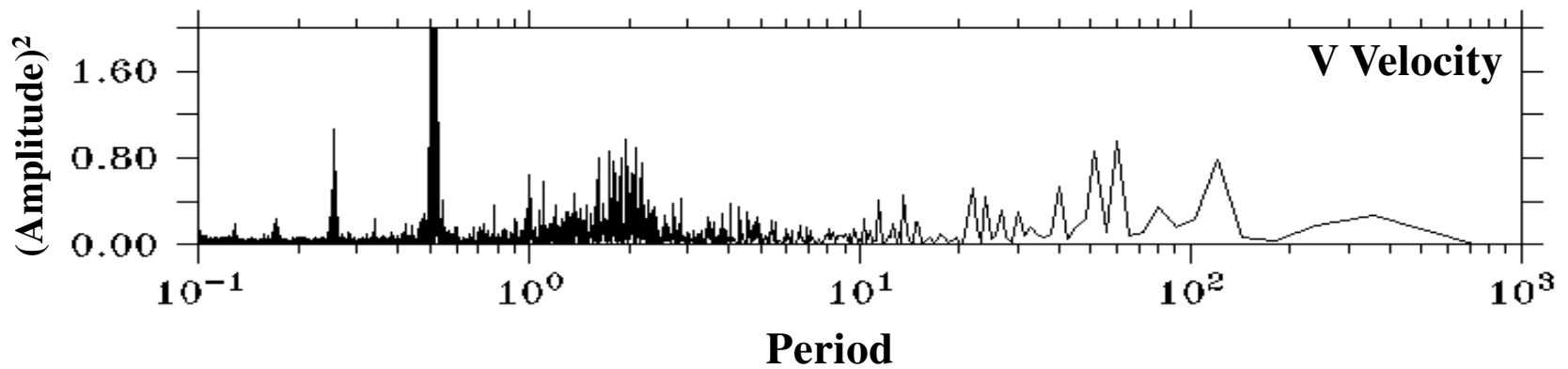
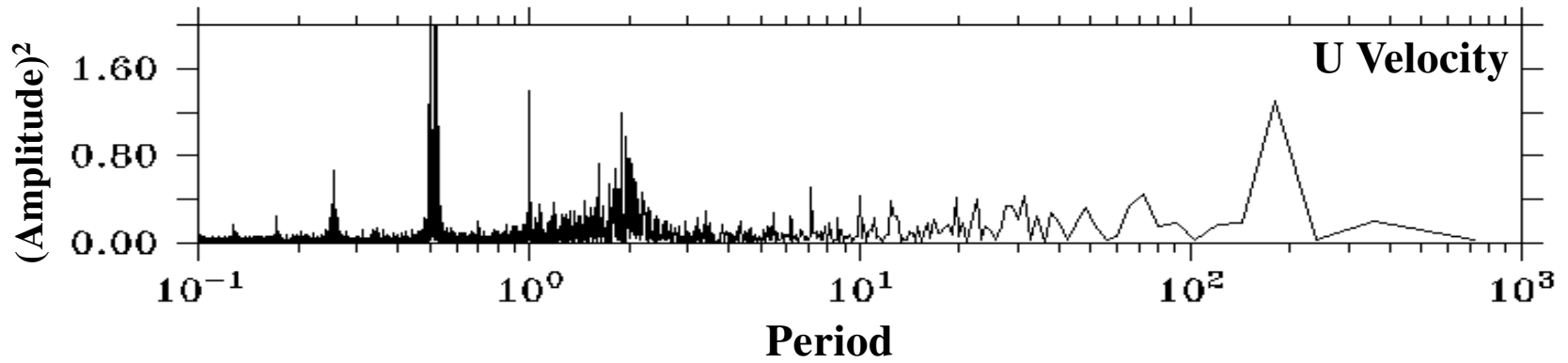
Introduction & Objectives

Emerging Trends in Ocean Observation and Ocean Data Analysis is the workshop conducted at INCOIS.

The objectives of the workshop is as follows

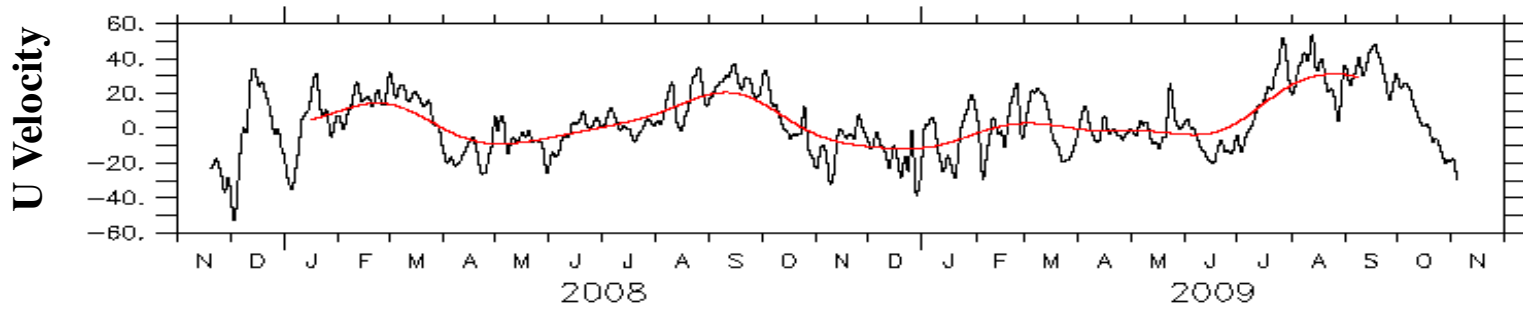
- **FFT analysis for current data**
- **Using filter for various frequencies present in current data**
- **Use of wavelet analysis for the current data**
- **Carbon flux analysis**

FFT for Moored Buoy at 90 °E , 15 °N at 10 m Depth

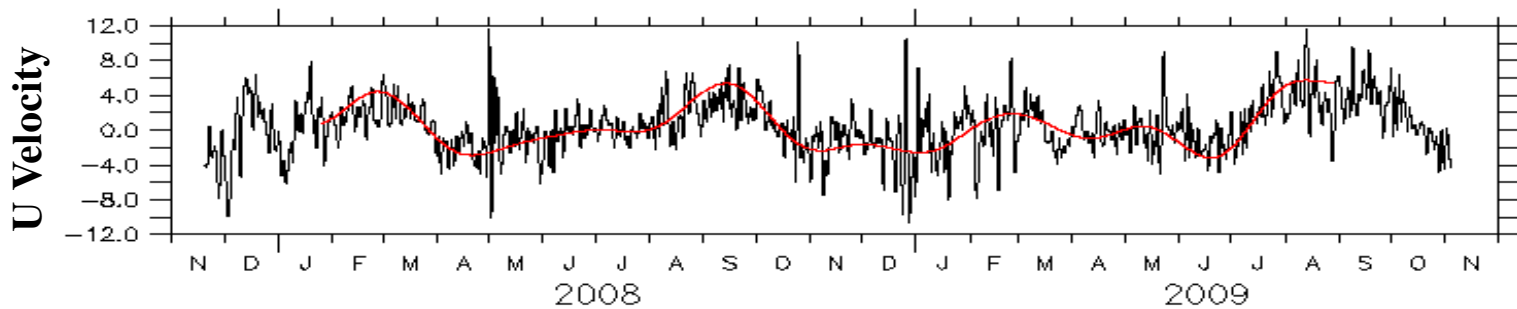


Lanczos Filter

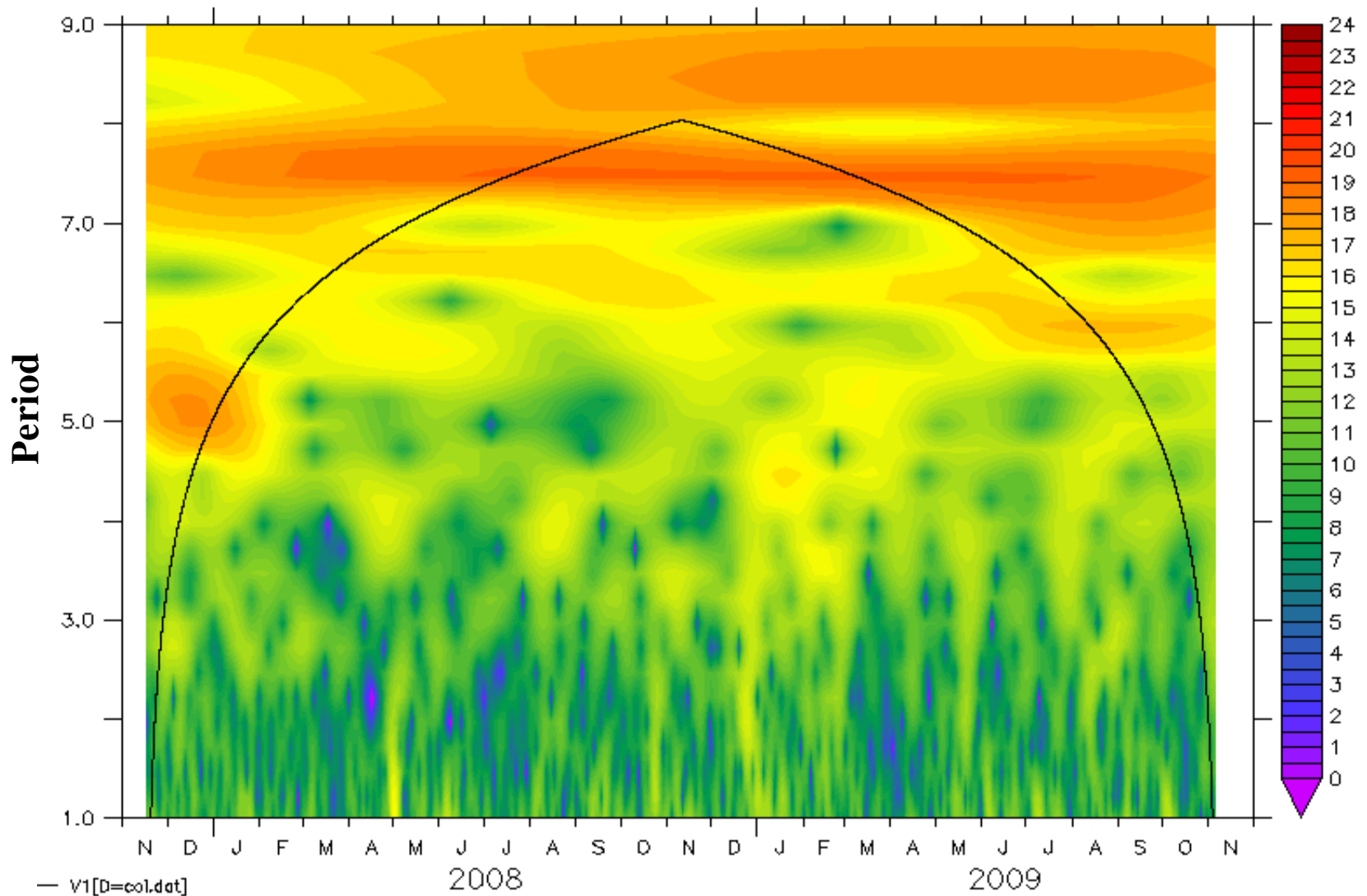
(a) ----- 5 days - - - - - 120 days



(a) ----- 3-5 days - - - - - 120-140 days

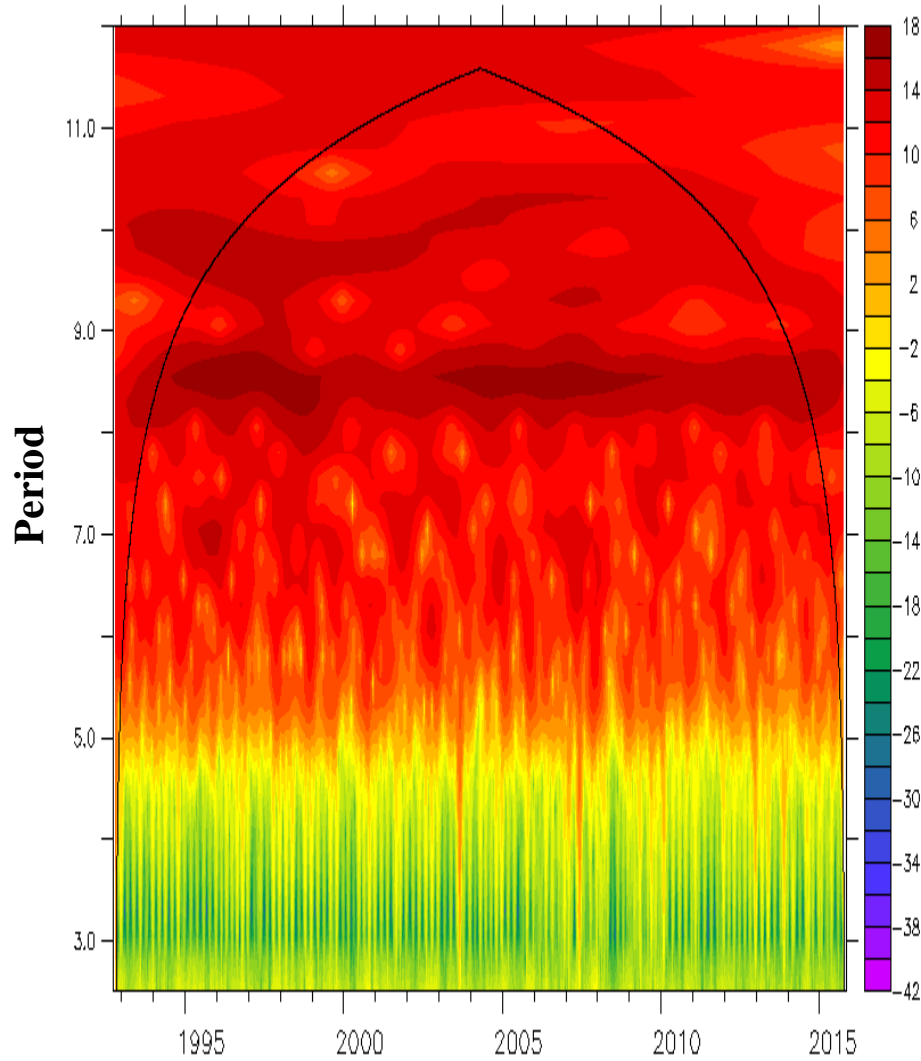


Wavelet Analysis 90 °E, 15 °N at 10 m Depth from Moored buoy

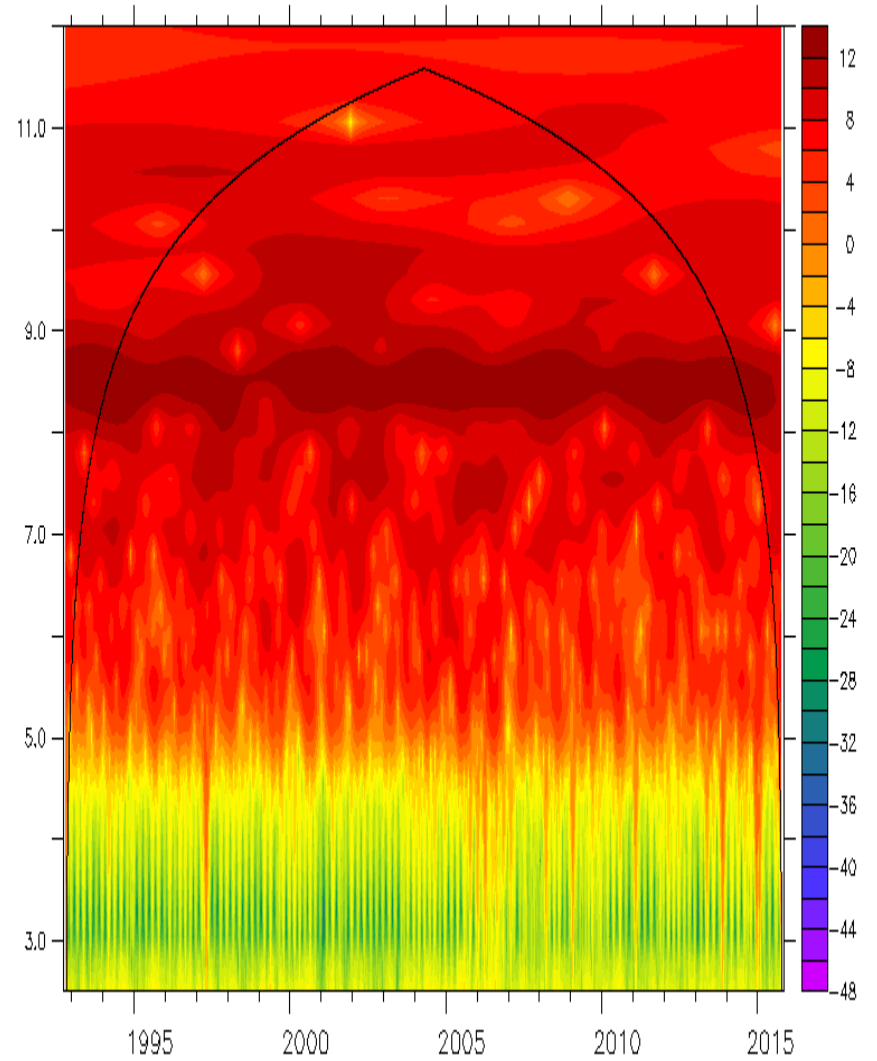


Wavelet Analysis of Current from Oscar

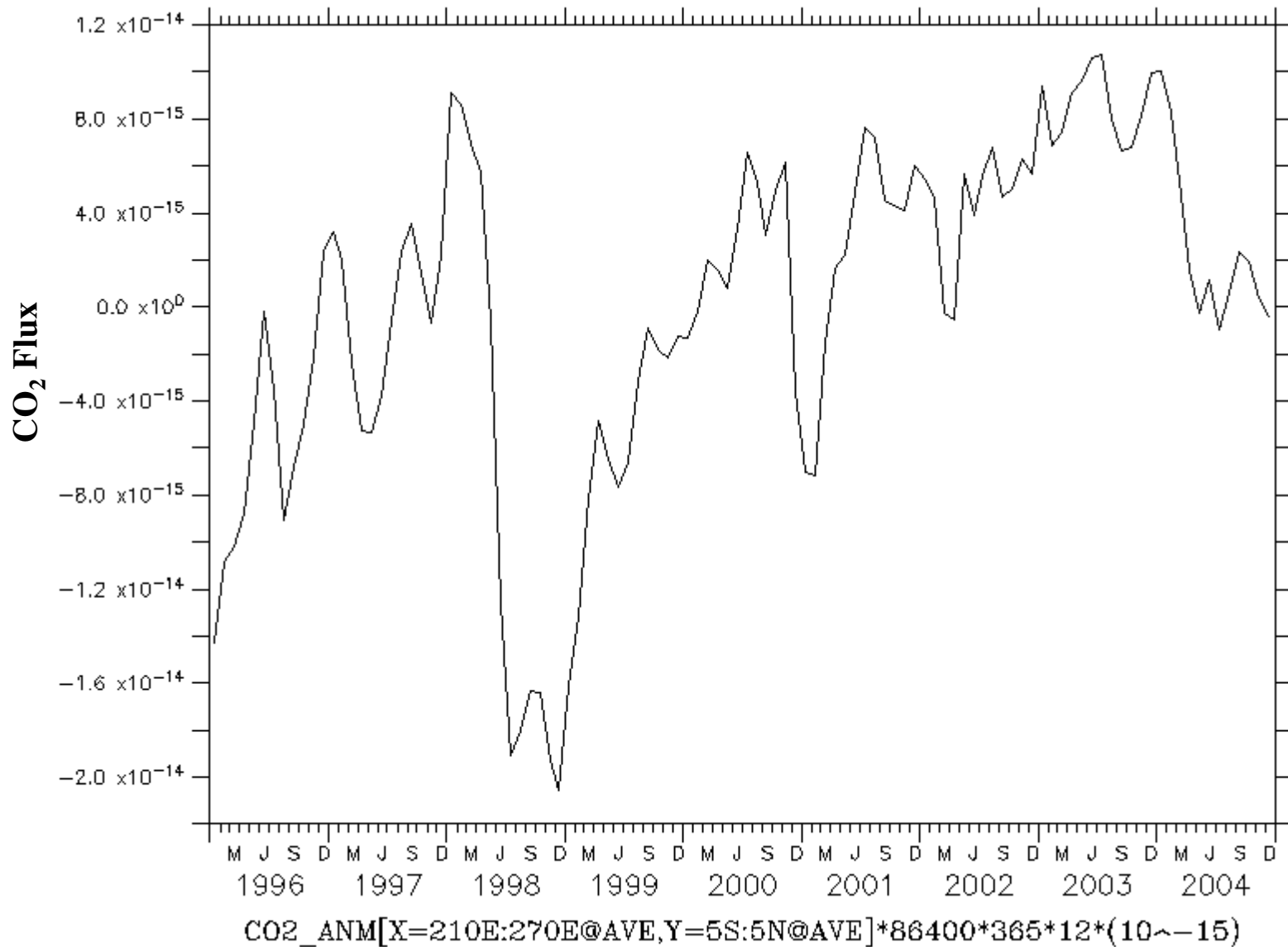
(a) 55 °E, 16 °N



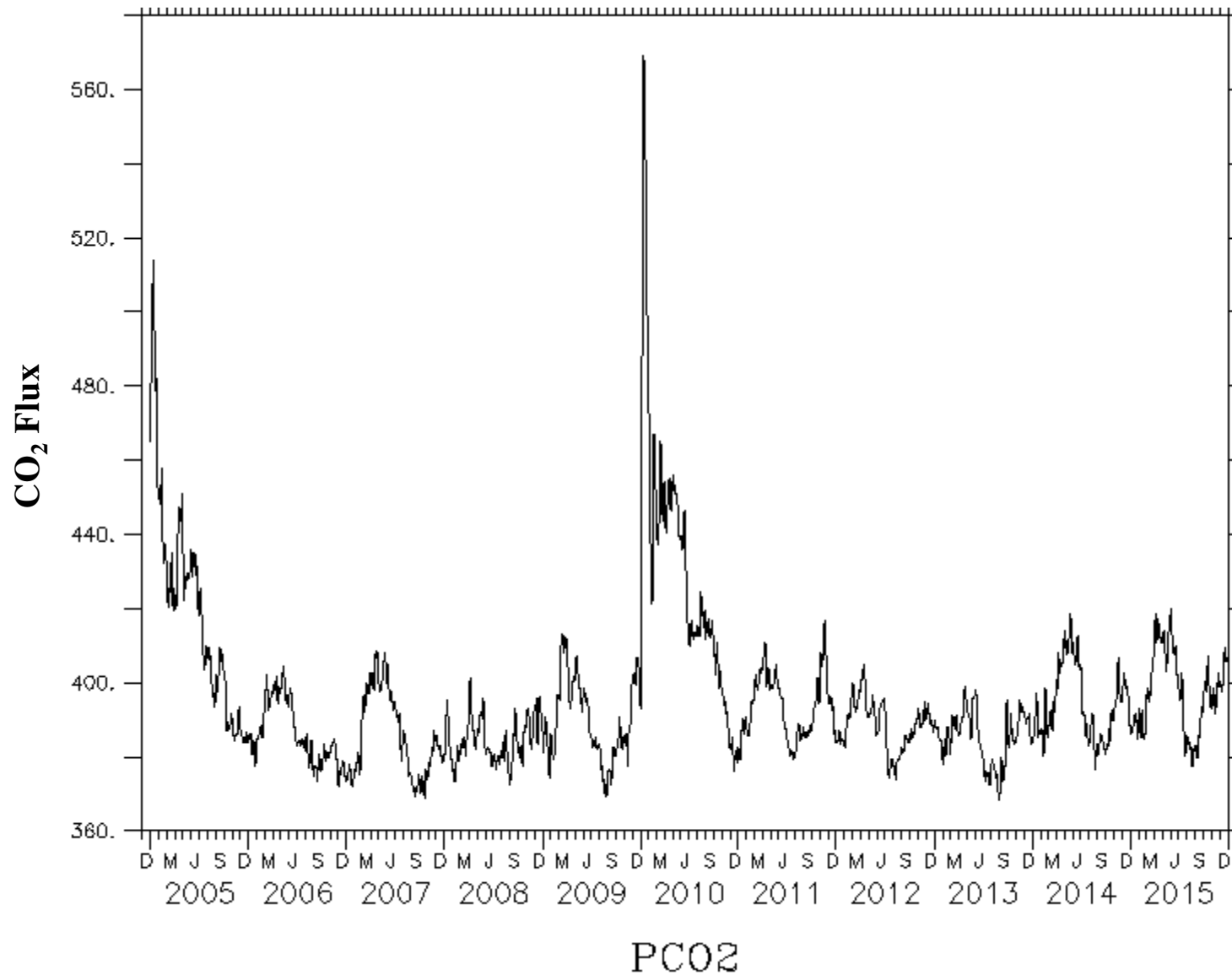
(b) 71 °E, 15 °N



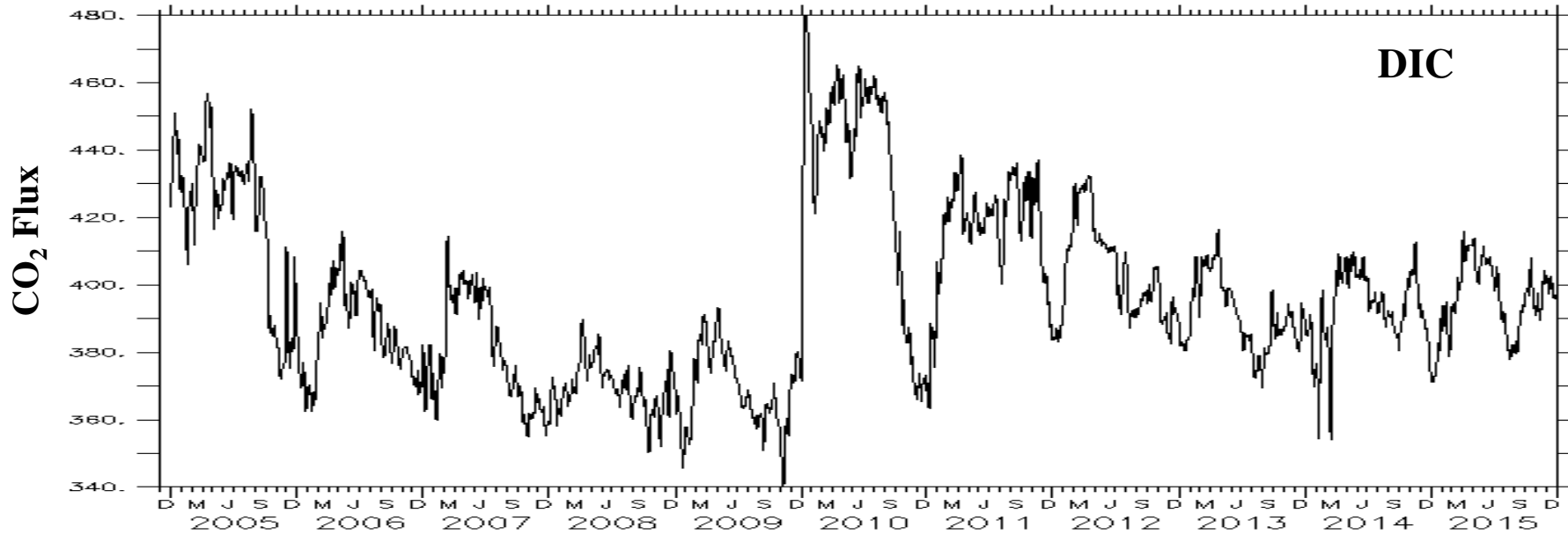
CO₂ Flux at Nino 3.4 region in PG/Yr



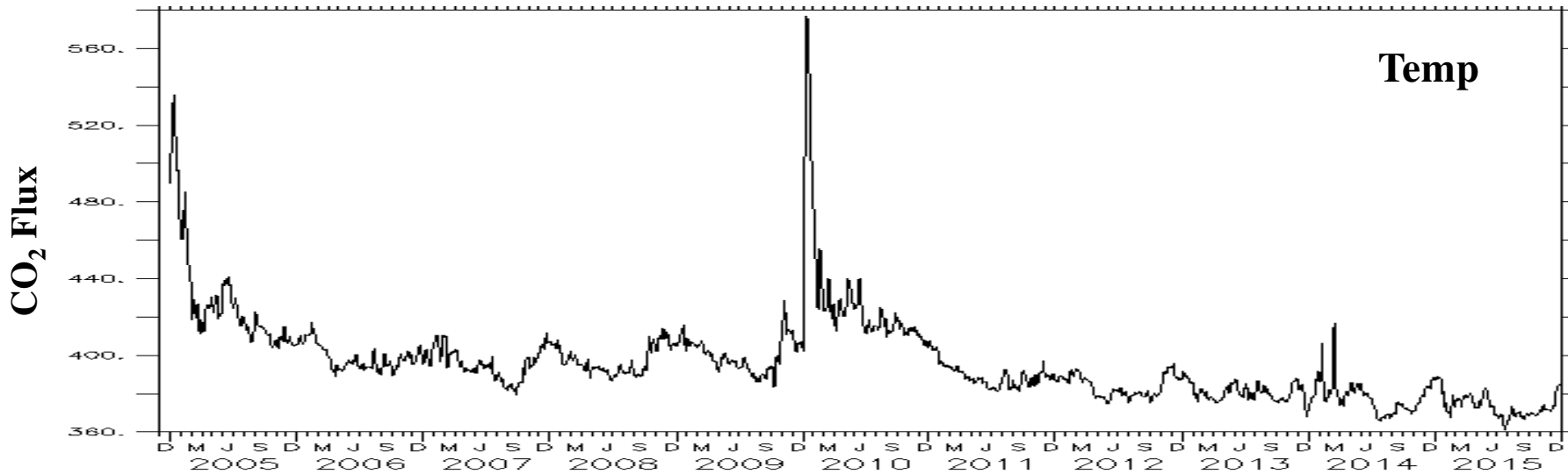
CO₂ Flux from Ctrl Run



CO₂ flux from DIC & Temp

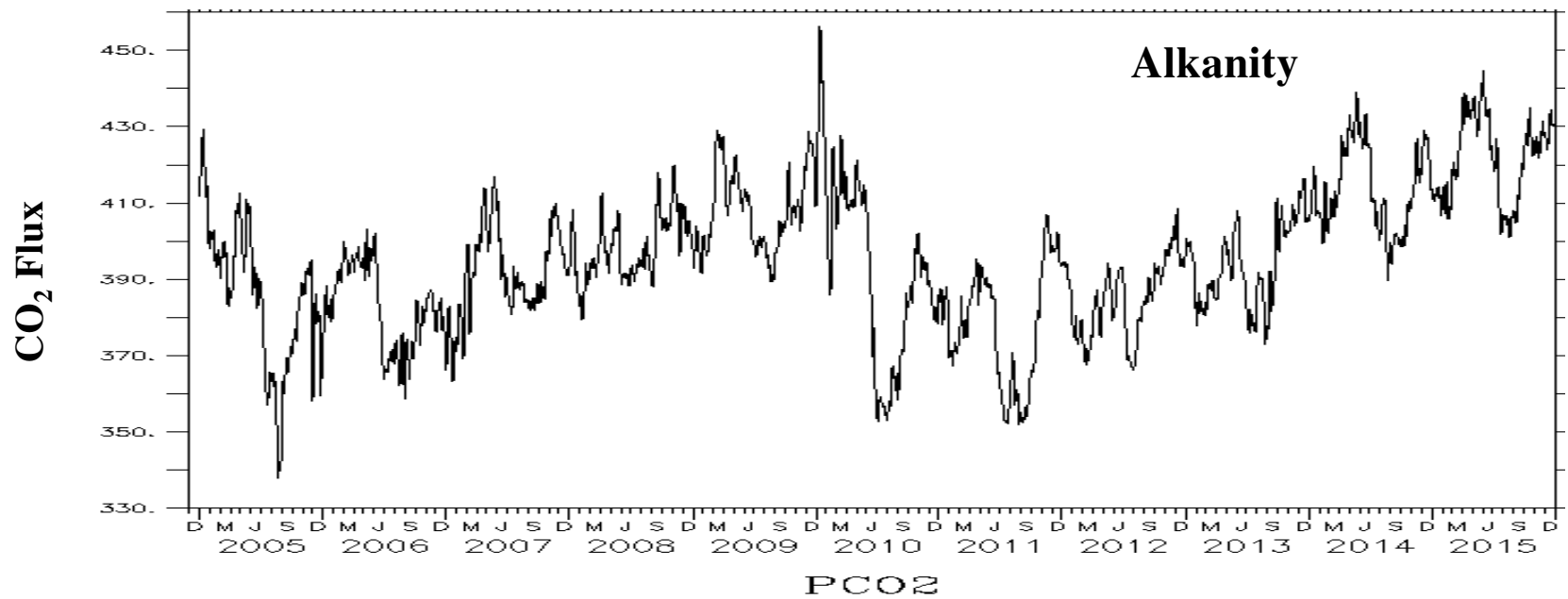
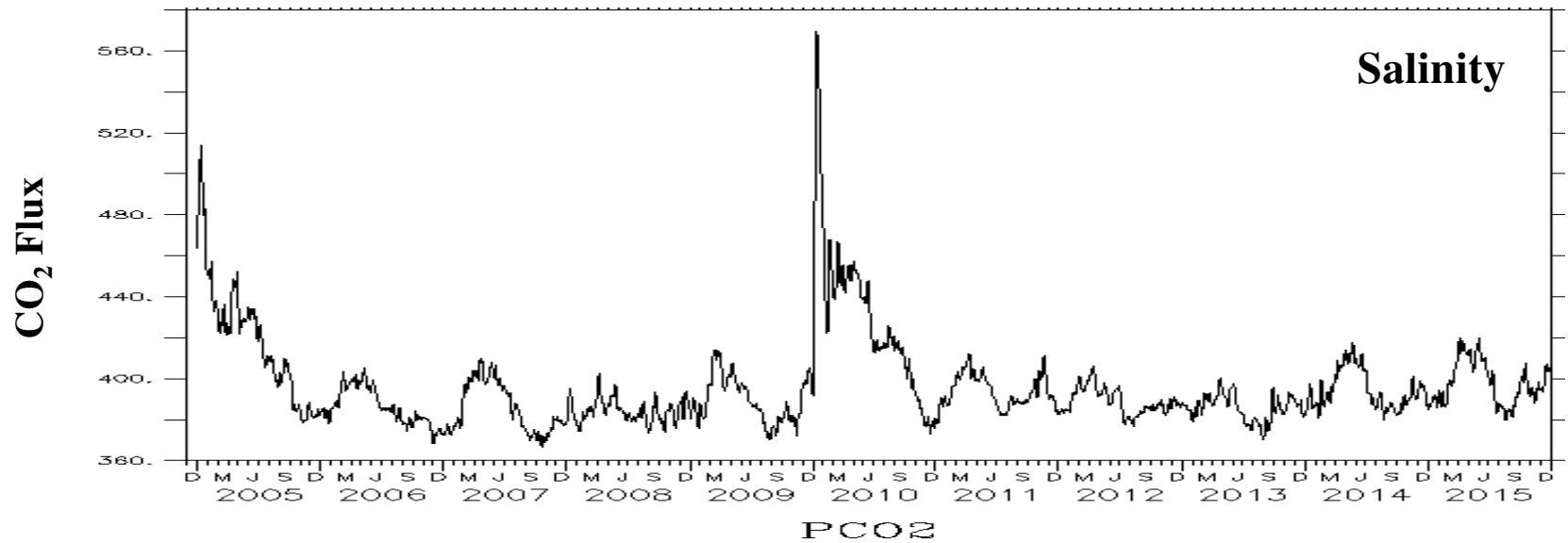


PCO₂

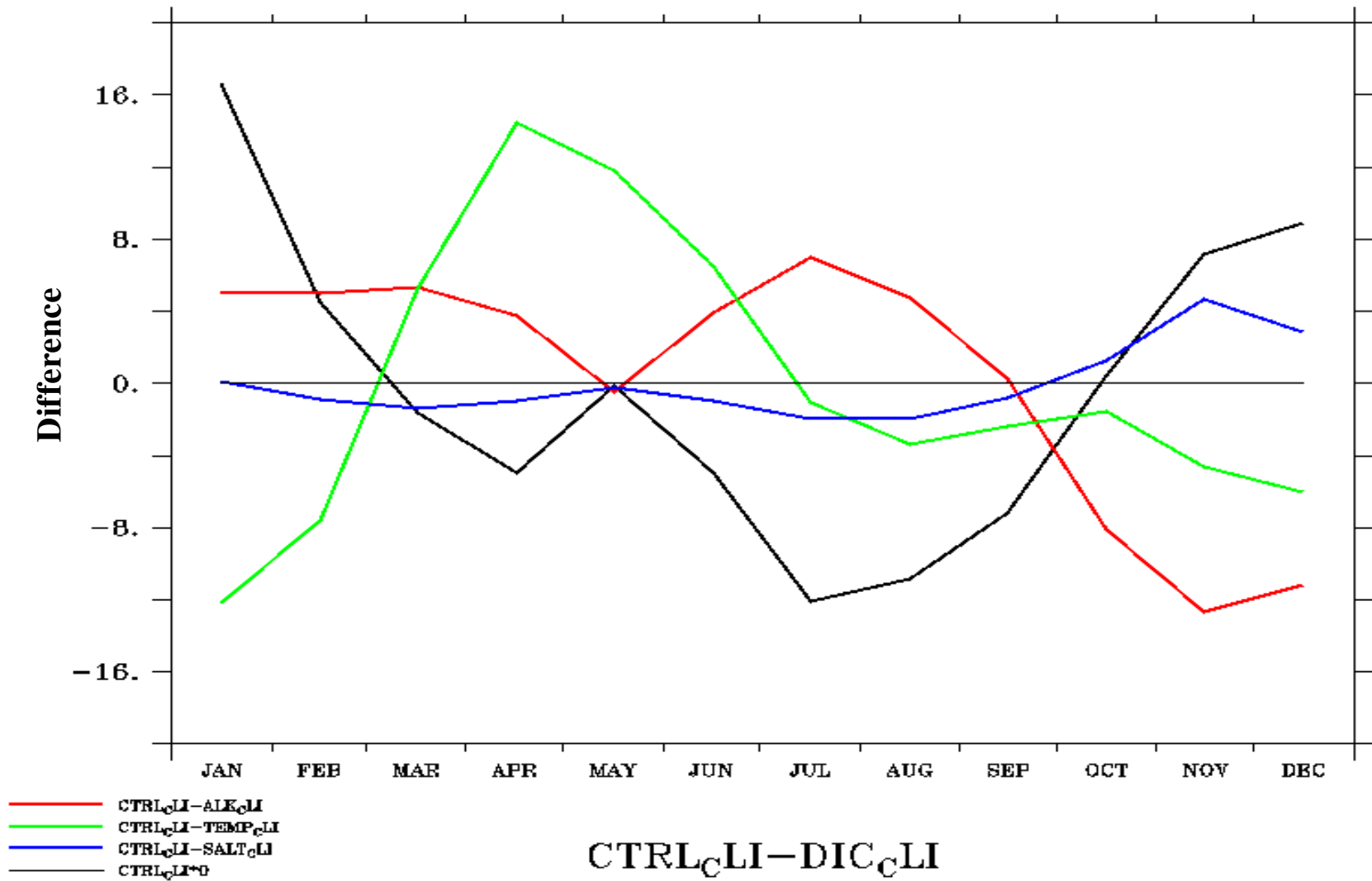


PCO₂

CO₂ Flux from Salinity and Alkanity



Effect of Removing Different Component from Ctrl run



THANK YOU