

Frequency Analysis of Air Quality Time Series for traffic related pollutants

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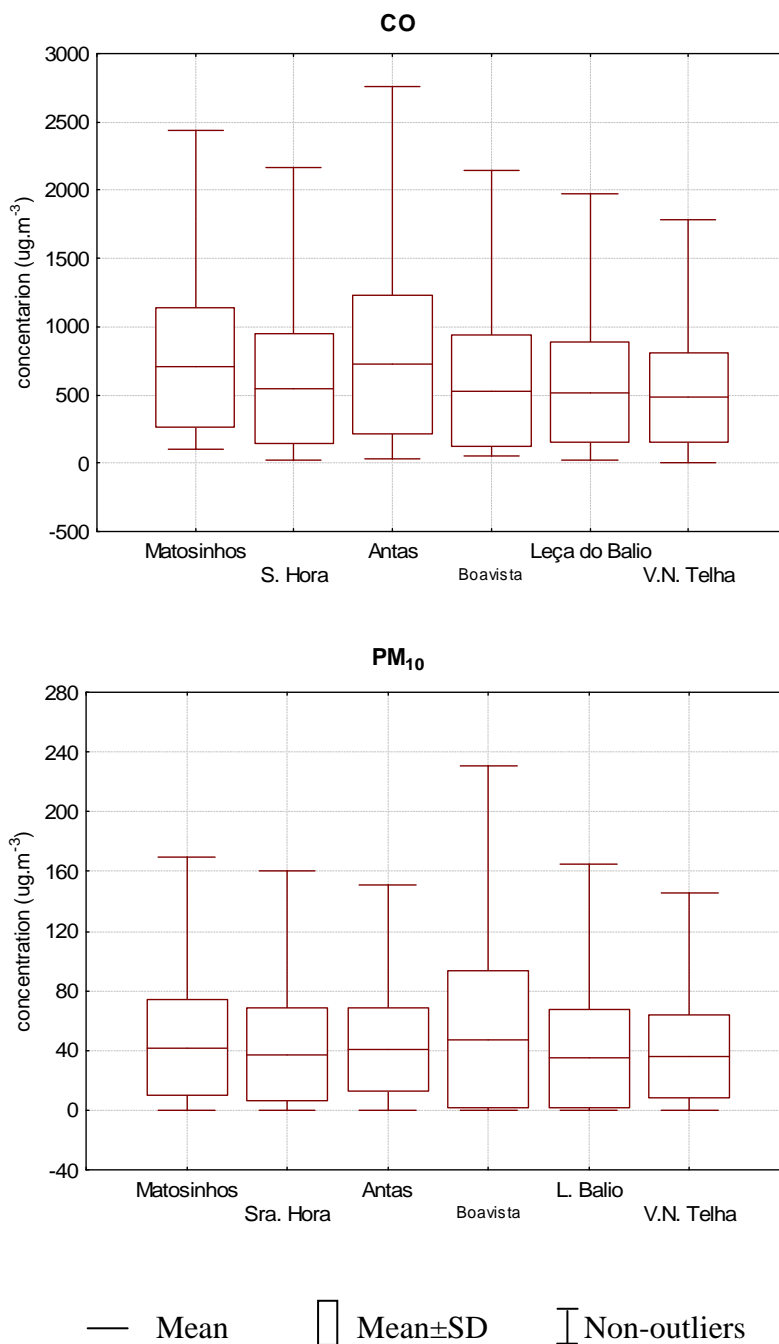


Figure 1. Box plot of the air quality measurement data for 2004

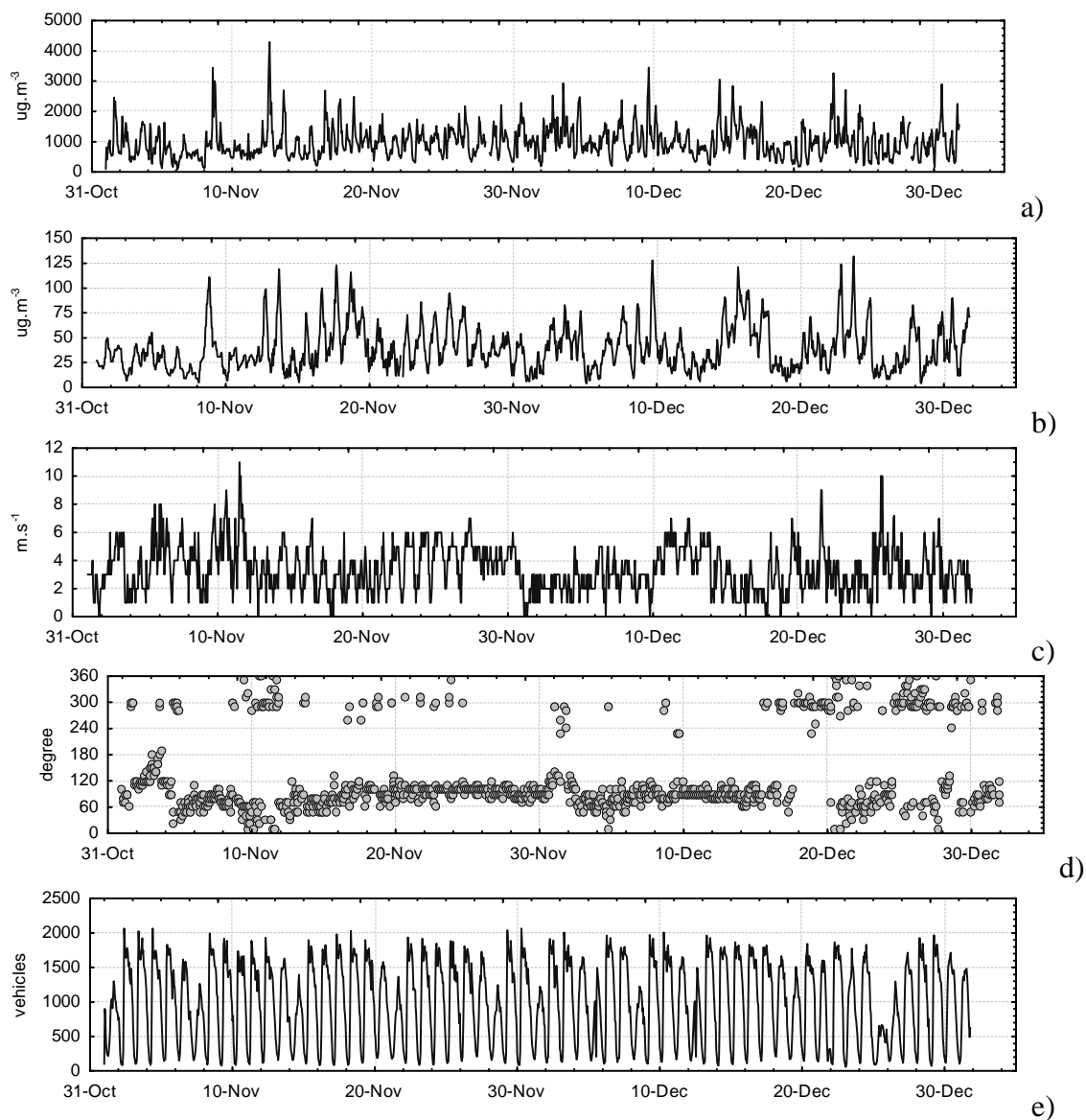


Figure 2. Data measured at Antas urban traffic station used in cross spectrum analysis: a) CO concentration, b) PM_{10} concentration, c) wind speed, d) wind direction and e) traffic counts.

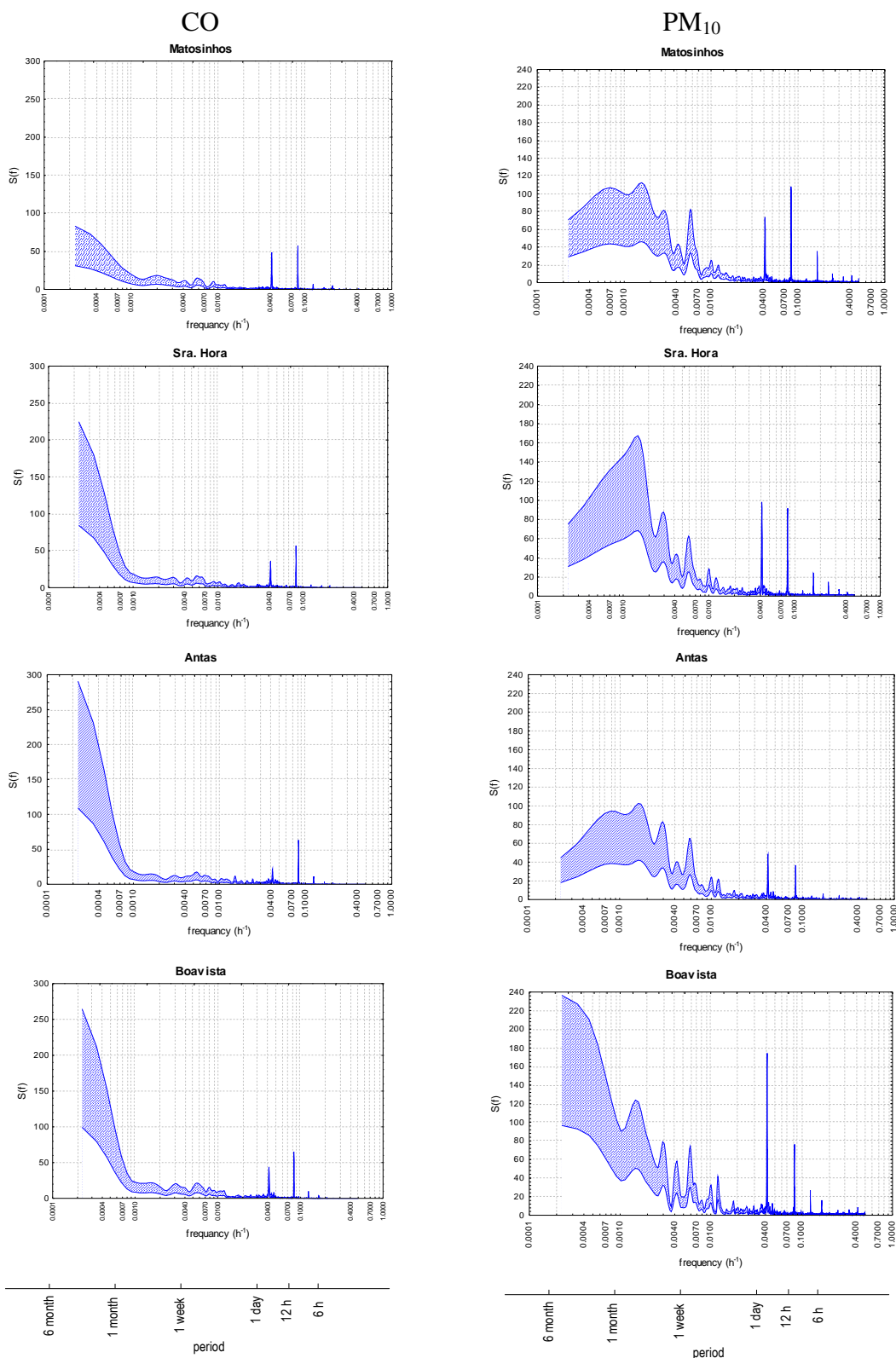


Figure 3. Power spectrum density of CO and PM₁₀ at urban traffic stations

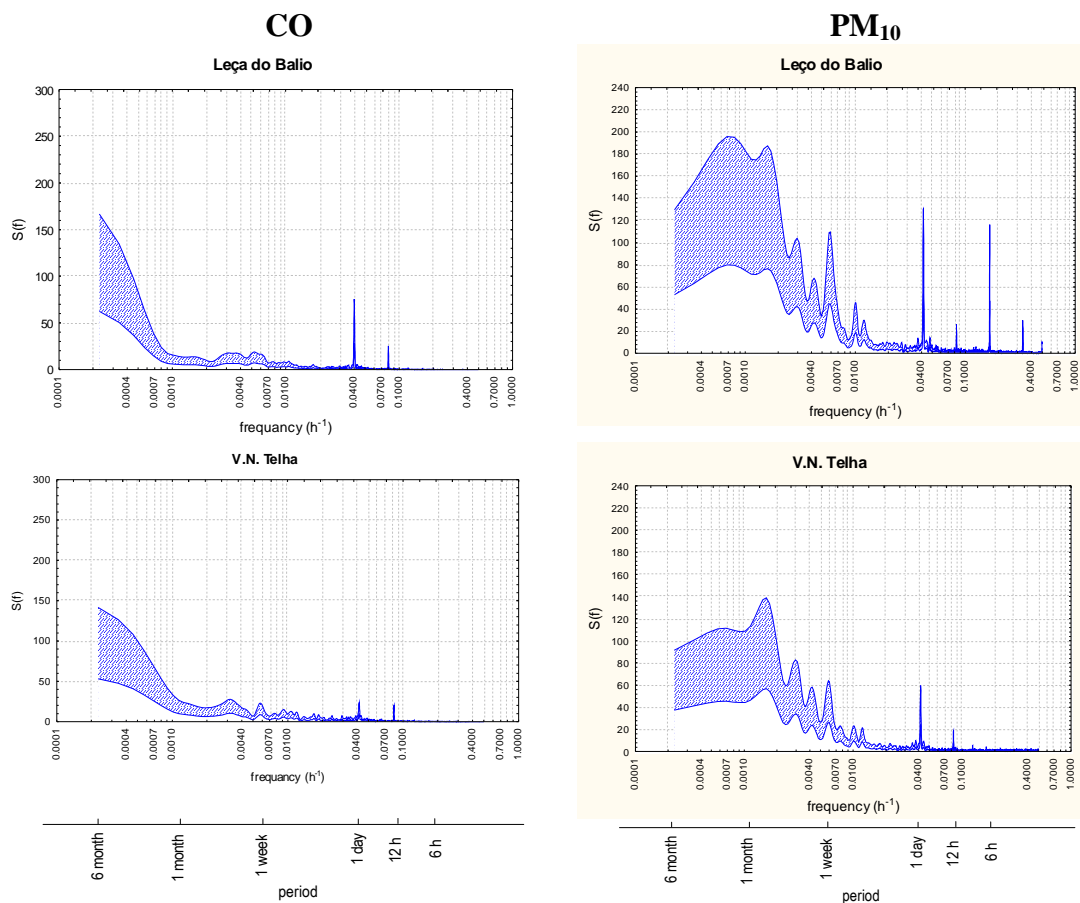


Figure 4. Power spectrum density of CO and PM₁₀ at suburban background stations

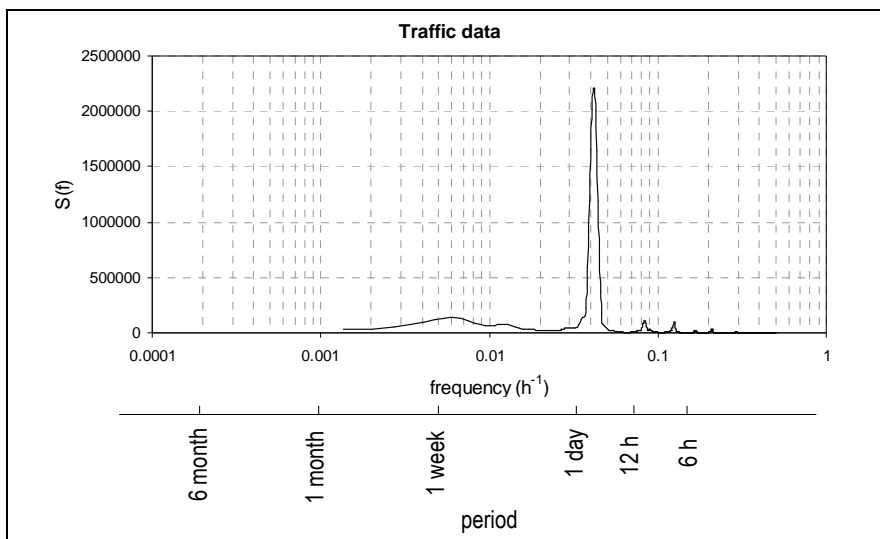


Figure 5. Power spectrum density of traffic counts

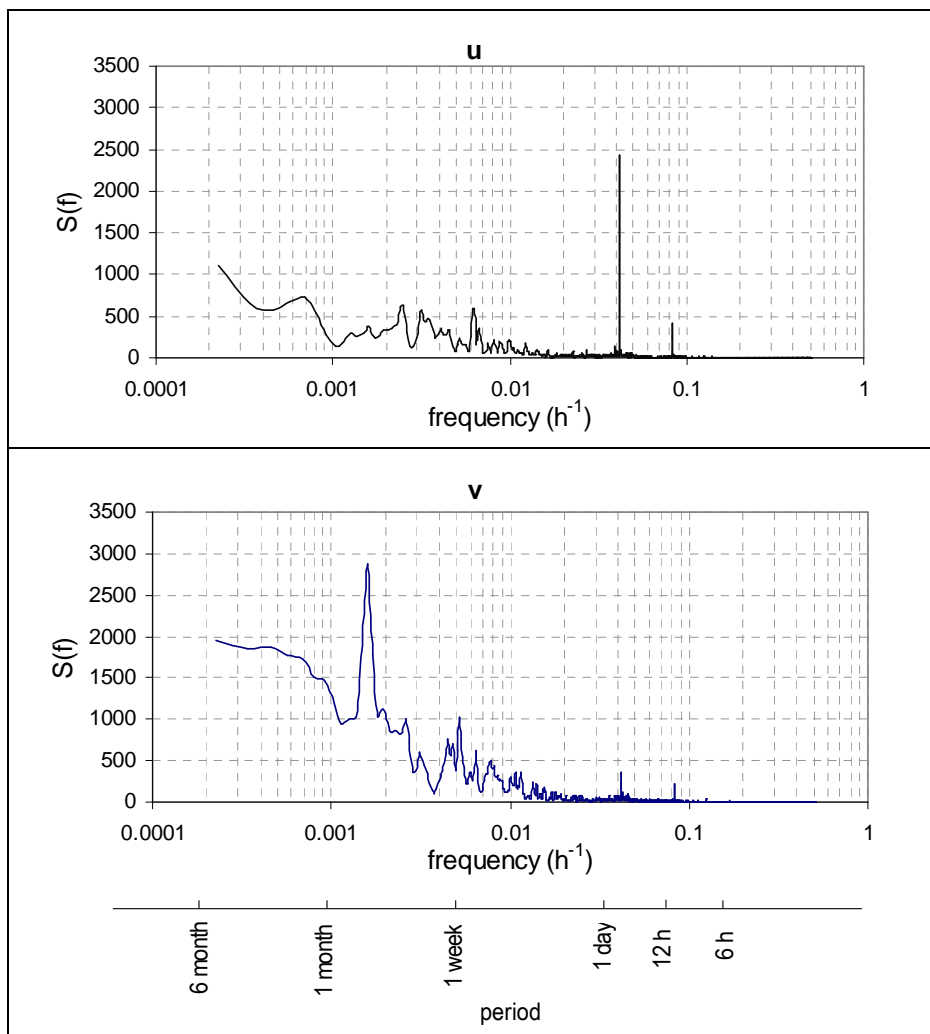


Figure 6. Power spectrum density of wind u and v components.

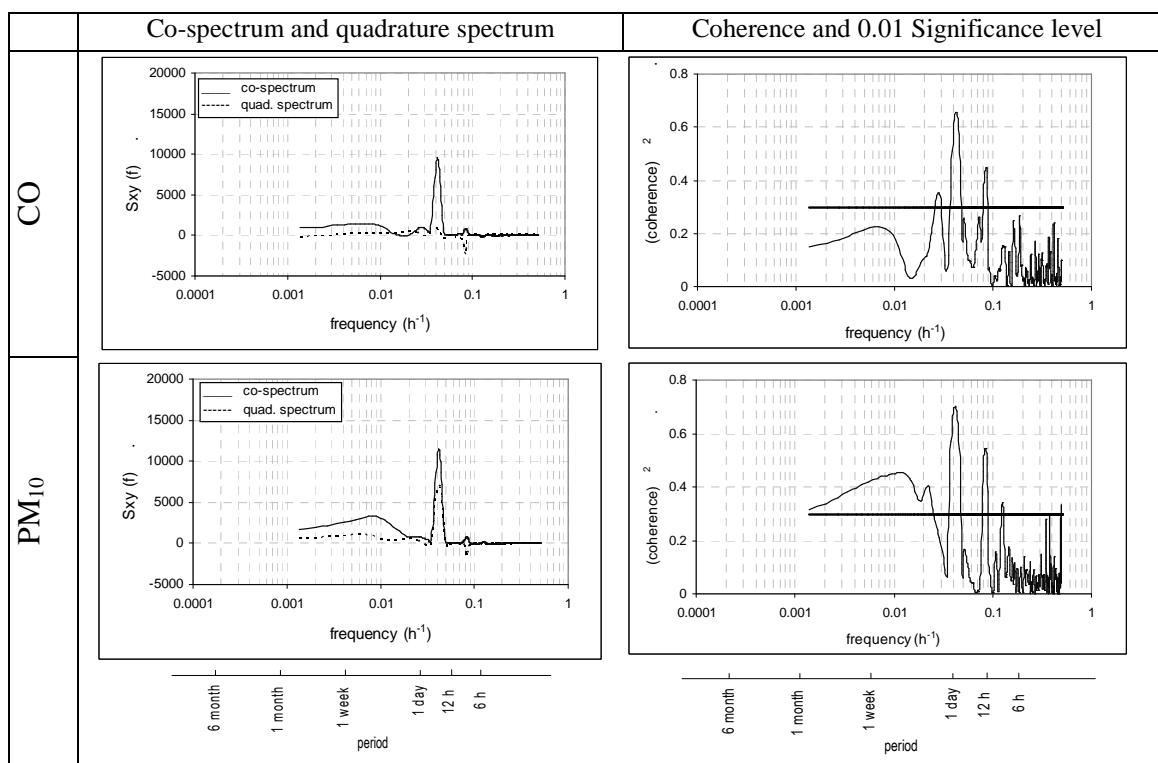


Figure 7. Co-spectrum, quadrature spectrum and coherency spectrum for pollutant concentrations versus traffic counts.

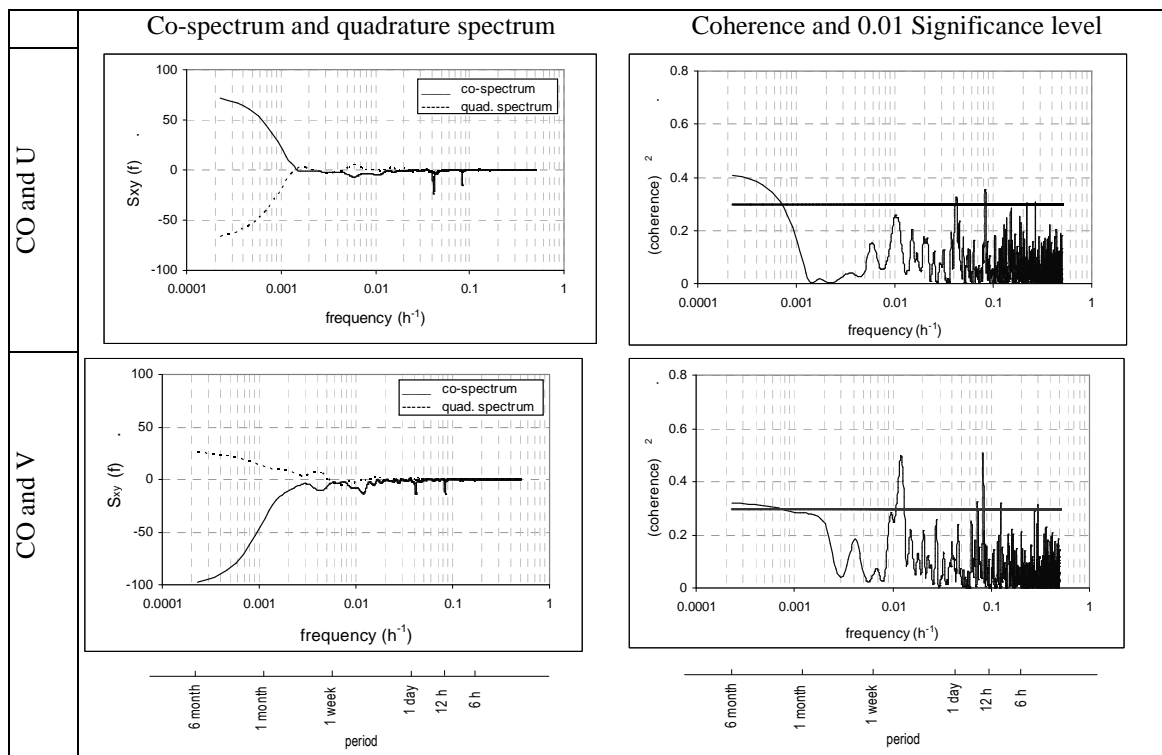


Figure 8. Co-spectrum, quadrature spectrum and coherency spectrum for CO concentrations versus wind components.

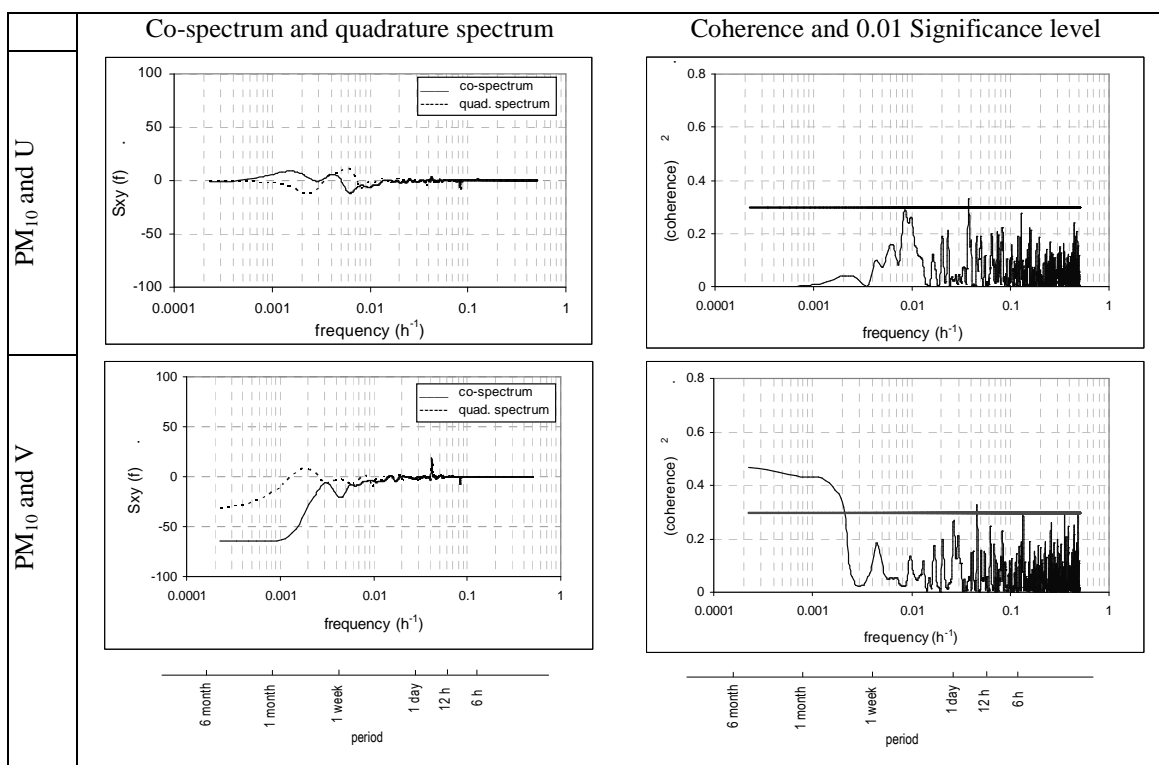


Figure 9. Co-spectrum, quadrature spectrum and coherency spectrum for PM₁₀ concentrations versus wind components.

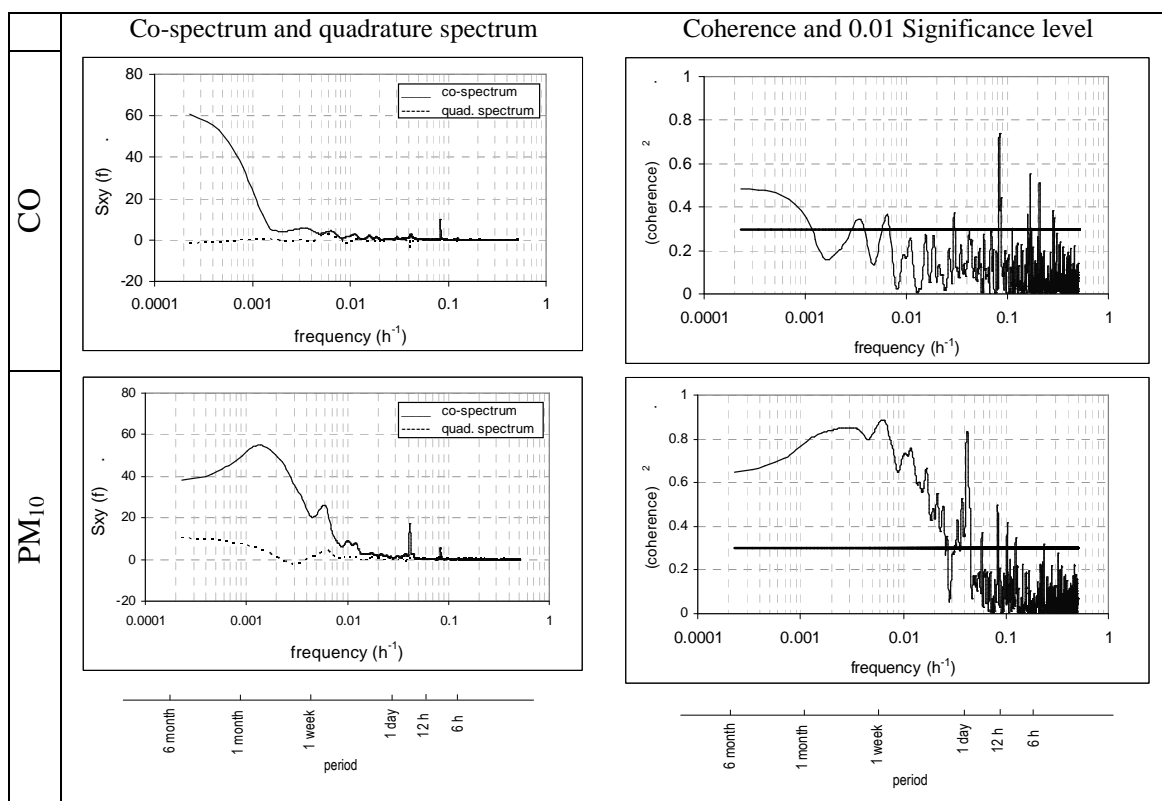


Figure 10. Co-spectrum, quadrature spectrum and coherency spectrum for CO and PM₁₀ concentrations: Antas urban station versus VNTelha suburban background station.