

Relation Between Air Pollution and Temperature

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Introduction

 KANCHANA1990 · UPDATED 24 DAYS AGO

51

New Notebook

 Download (2 MB) 

World Air Quality Data 2024 (Updated)

Extending the Horizon: In-depth Air Quality Insights



world_air_quality.csv (6.47 MB)   

Detail Compact Column

10 of 10 columns

A City

city

51013

unique values

Valid

54.2k

100%

Mismatched

0

0%

Missing

70

0%

Unique

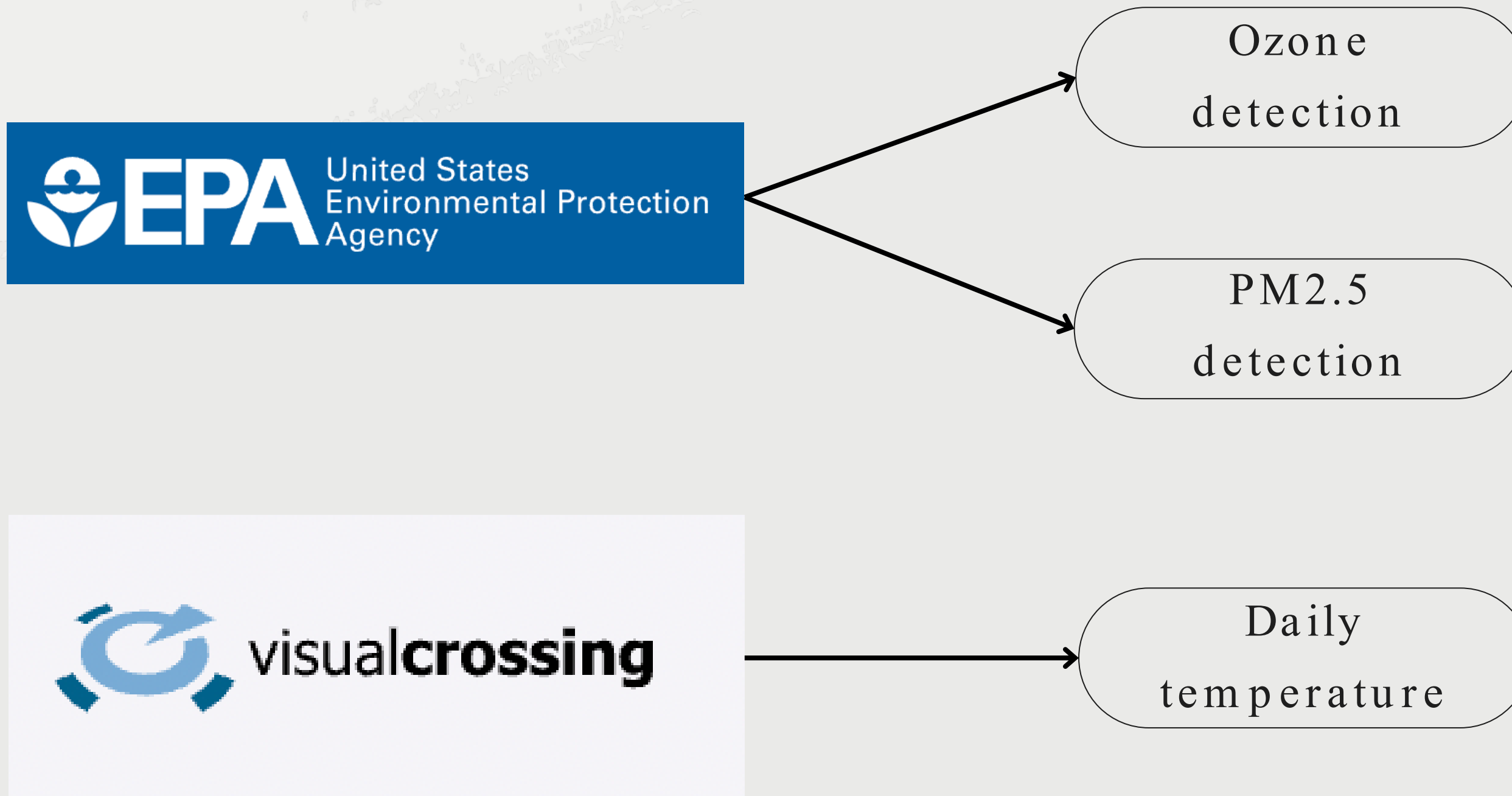
51.0k

Most Common

Mueang

0%

Database



Hypothesis

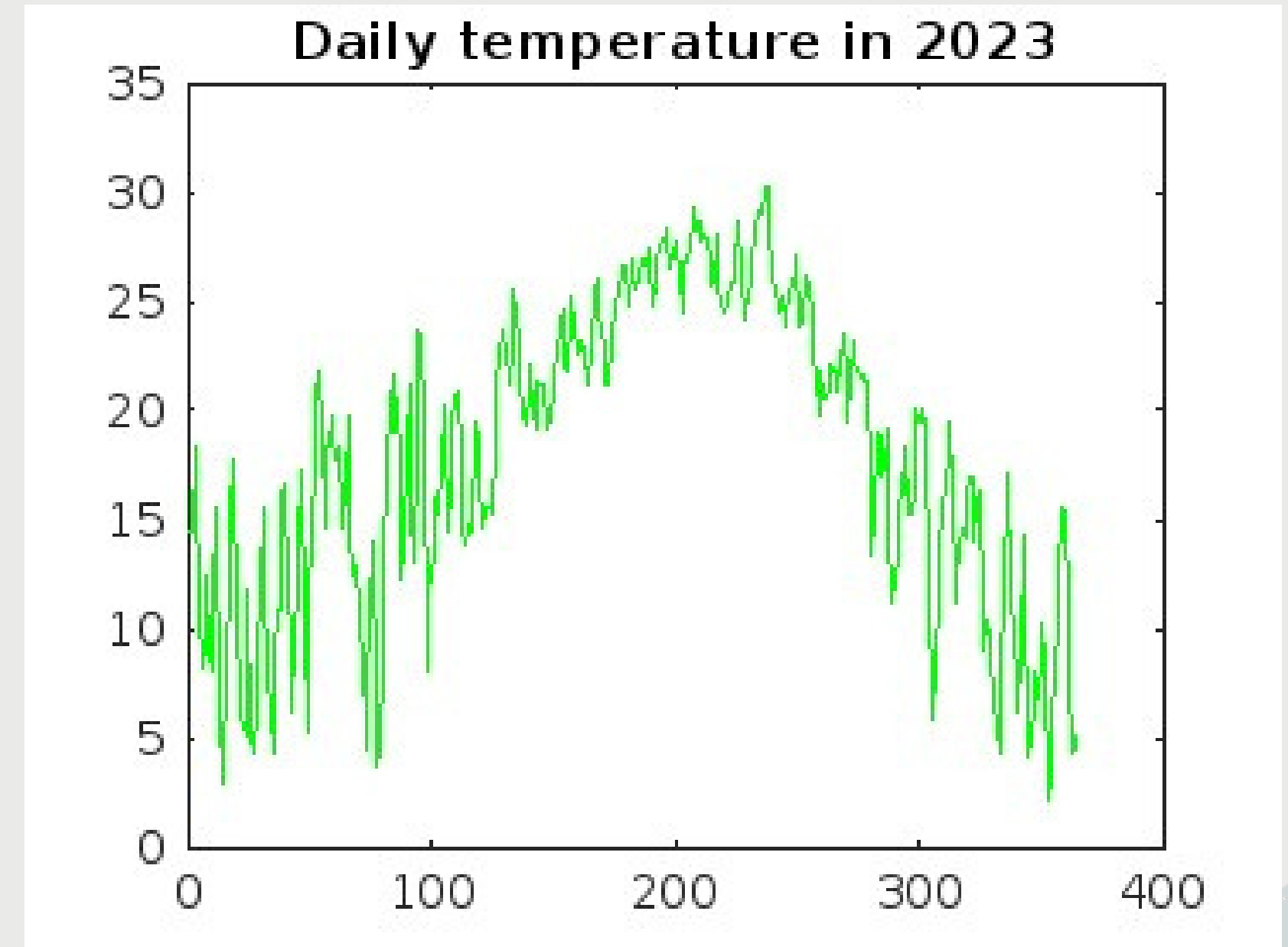
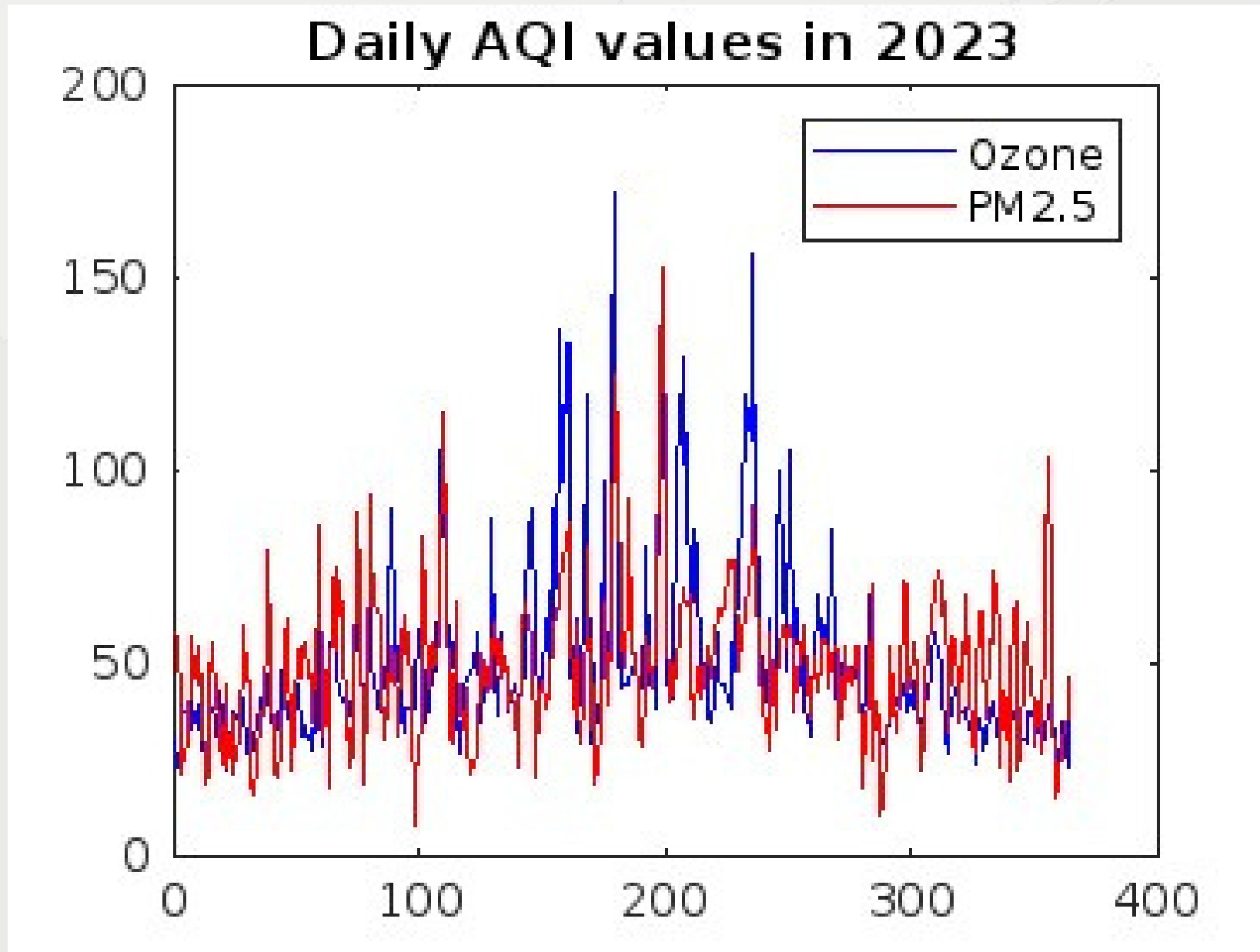
01

Air pollution is on the rise but with a slower pace as time goes on.

02

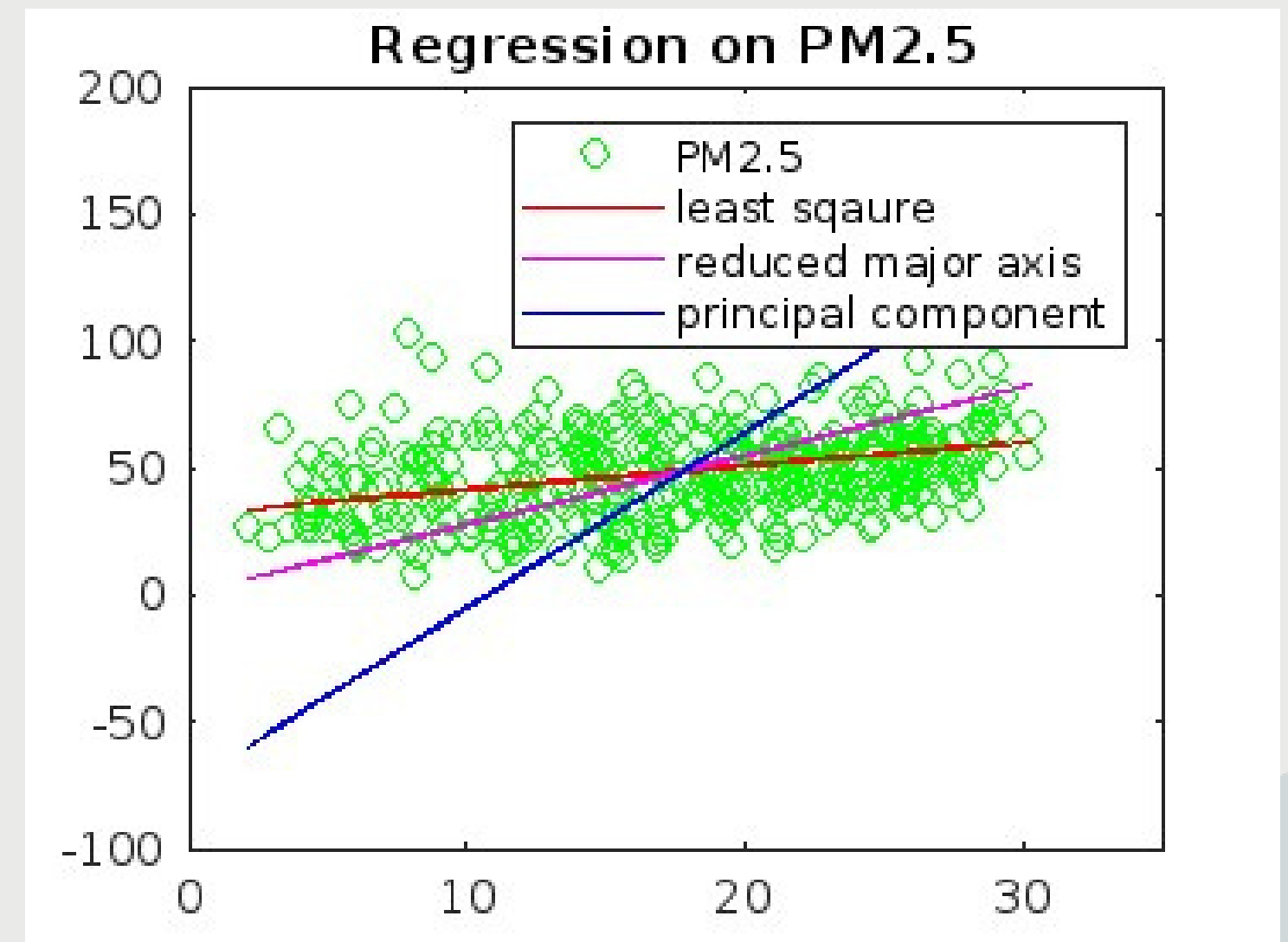
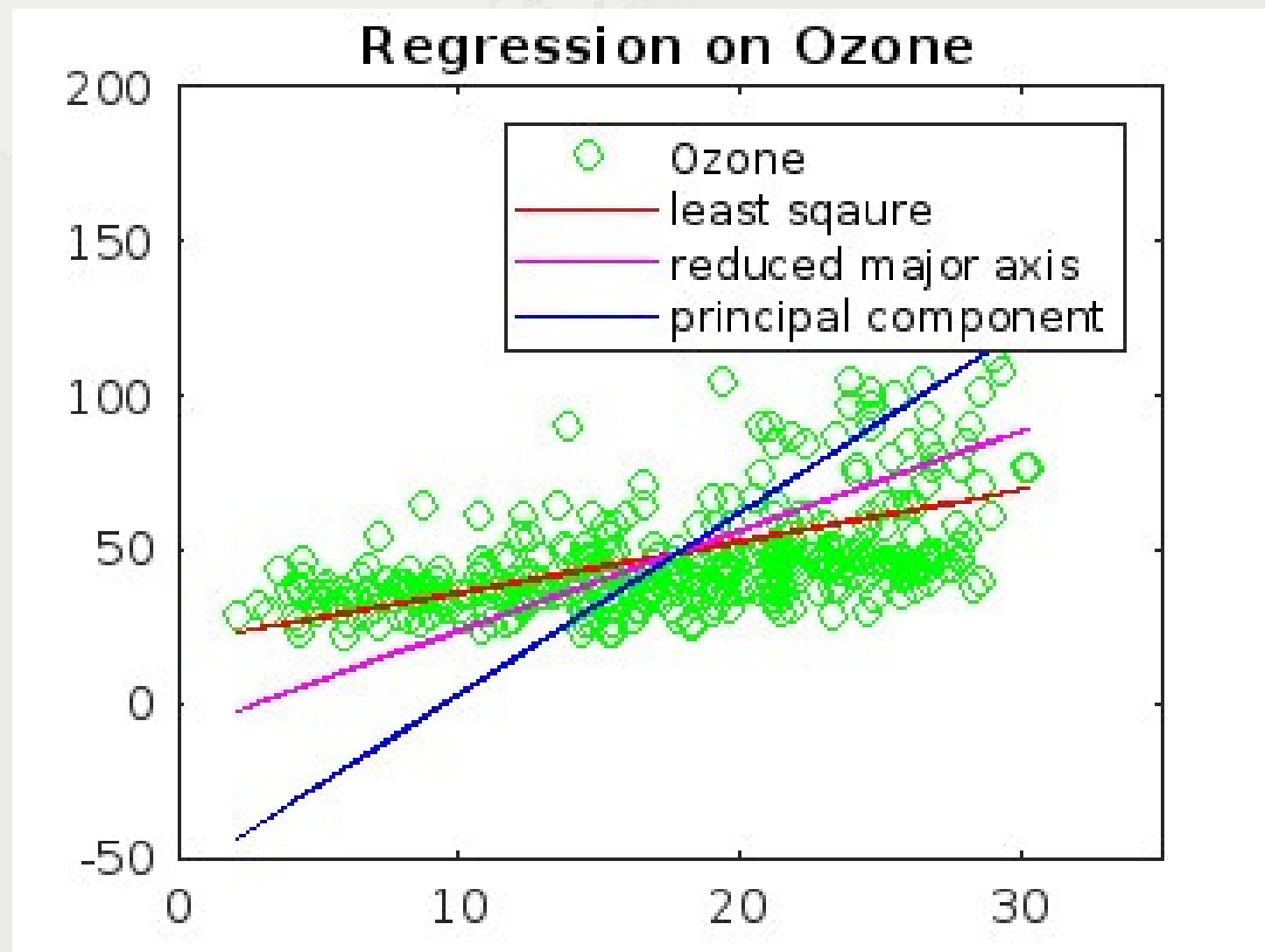
Air pollution can be affected by temperature.

Data Analysis



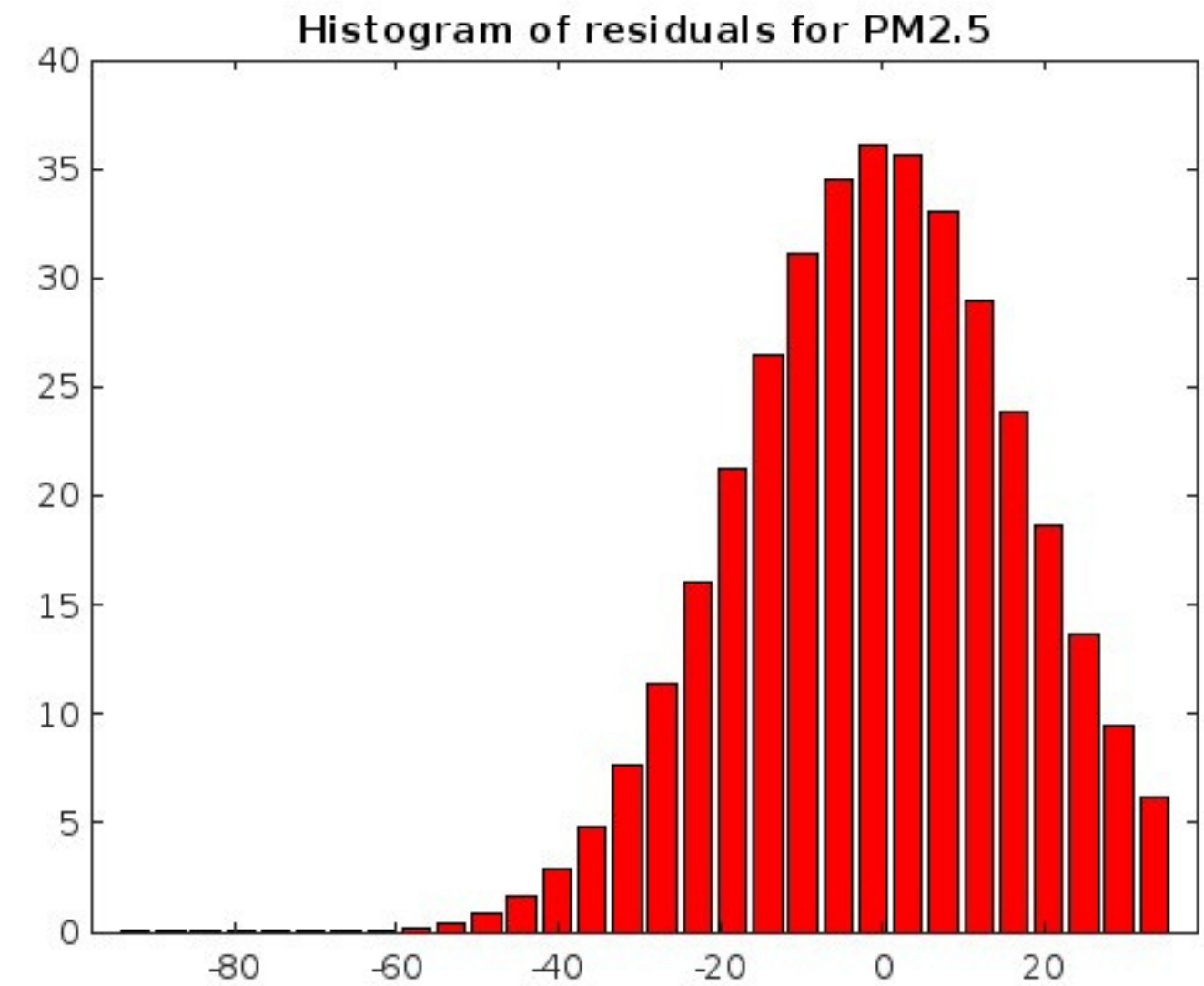
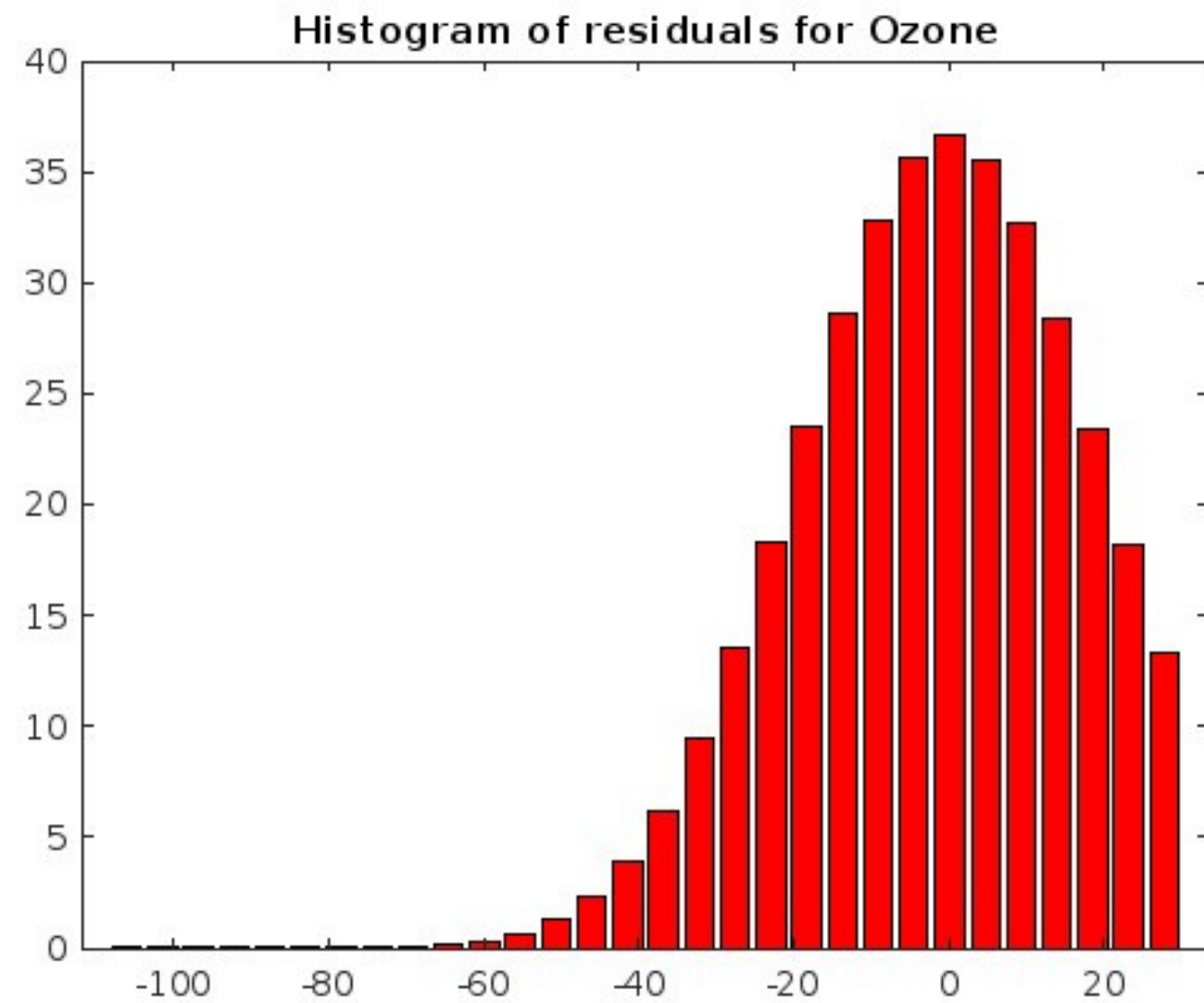
Data Analysis

Apply three types of regression



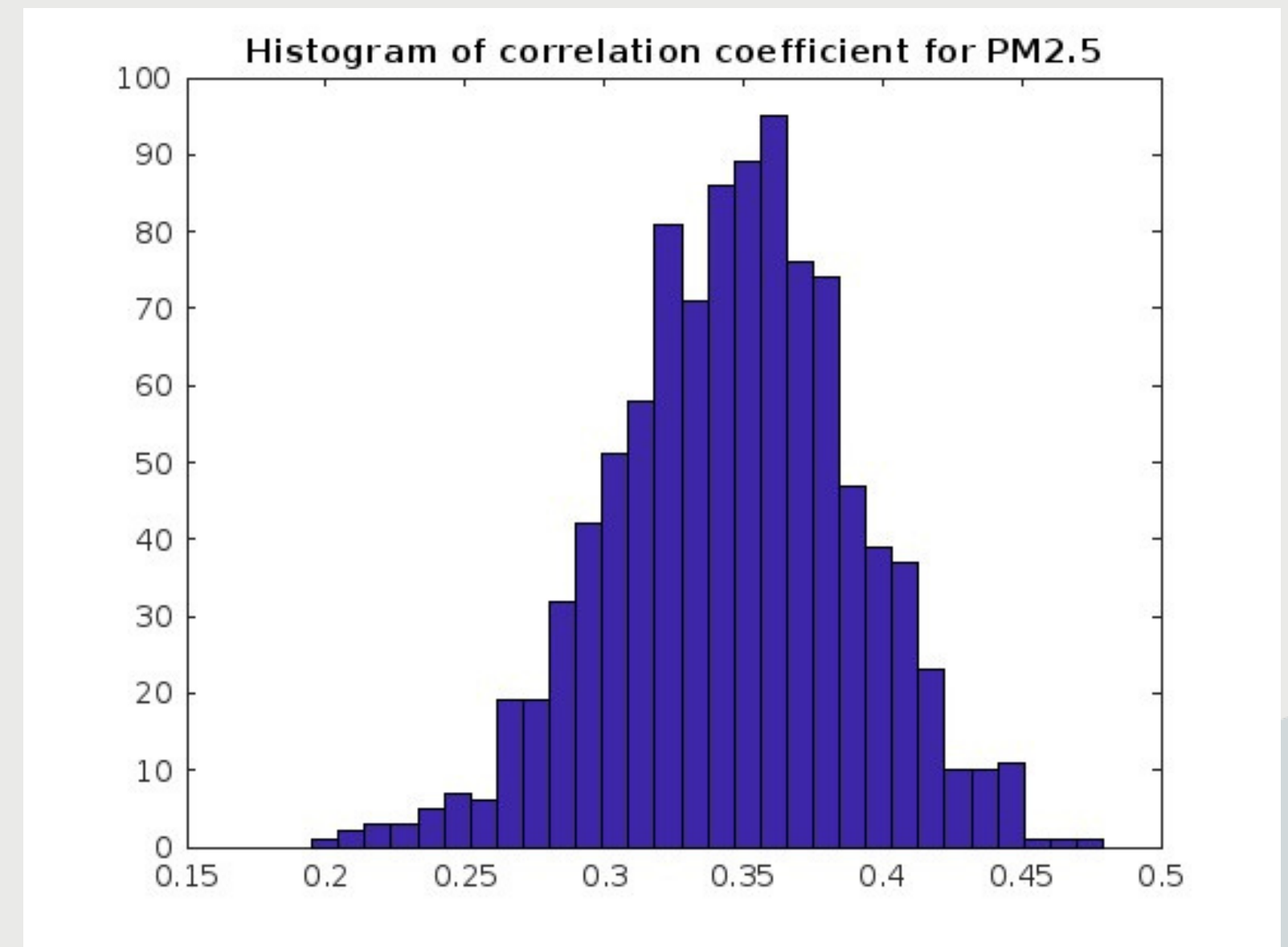
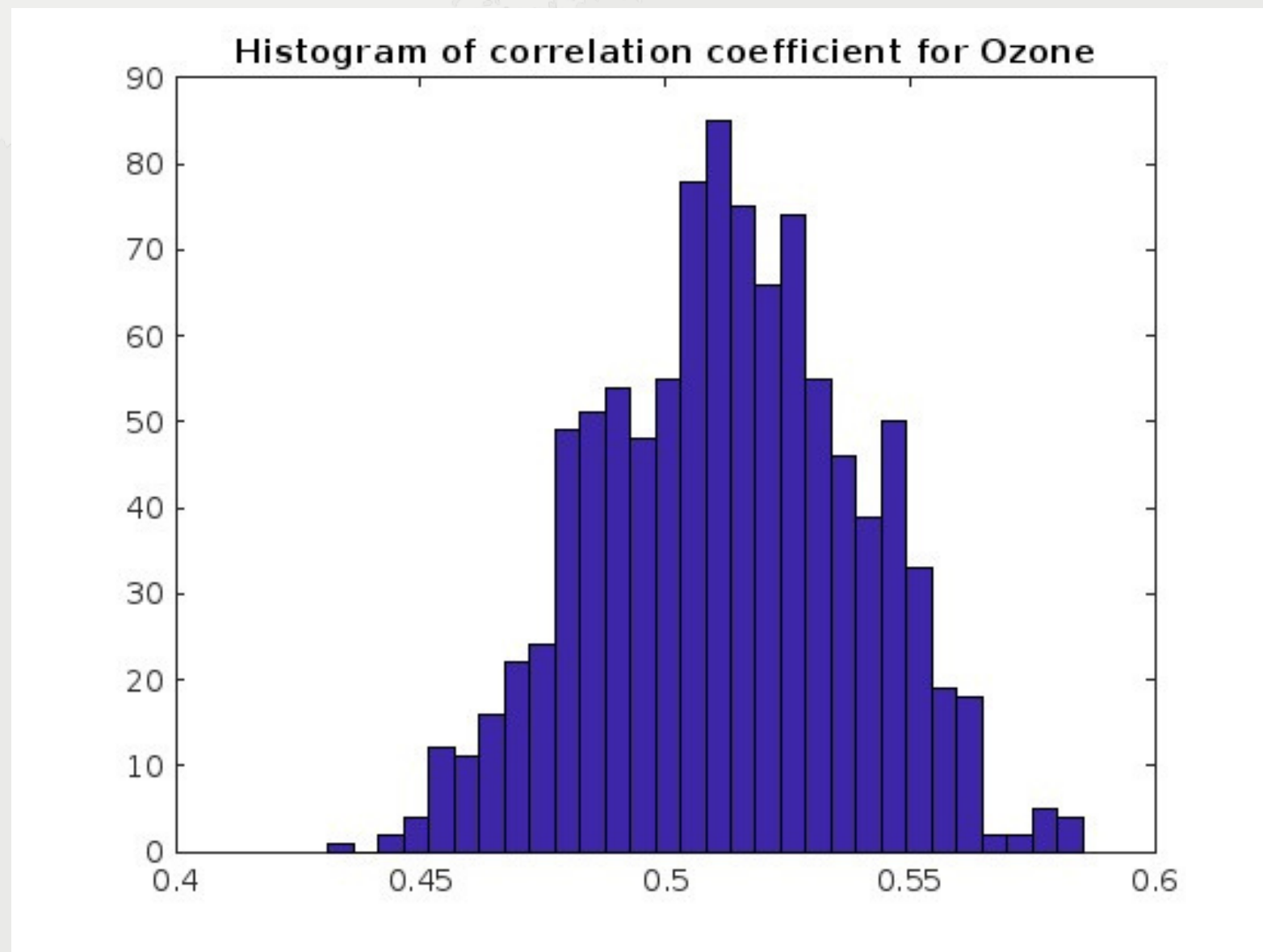
Data Analysis

Test of normality



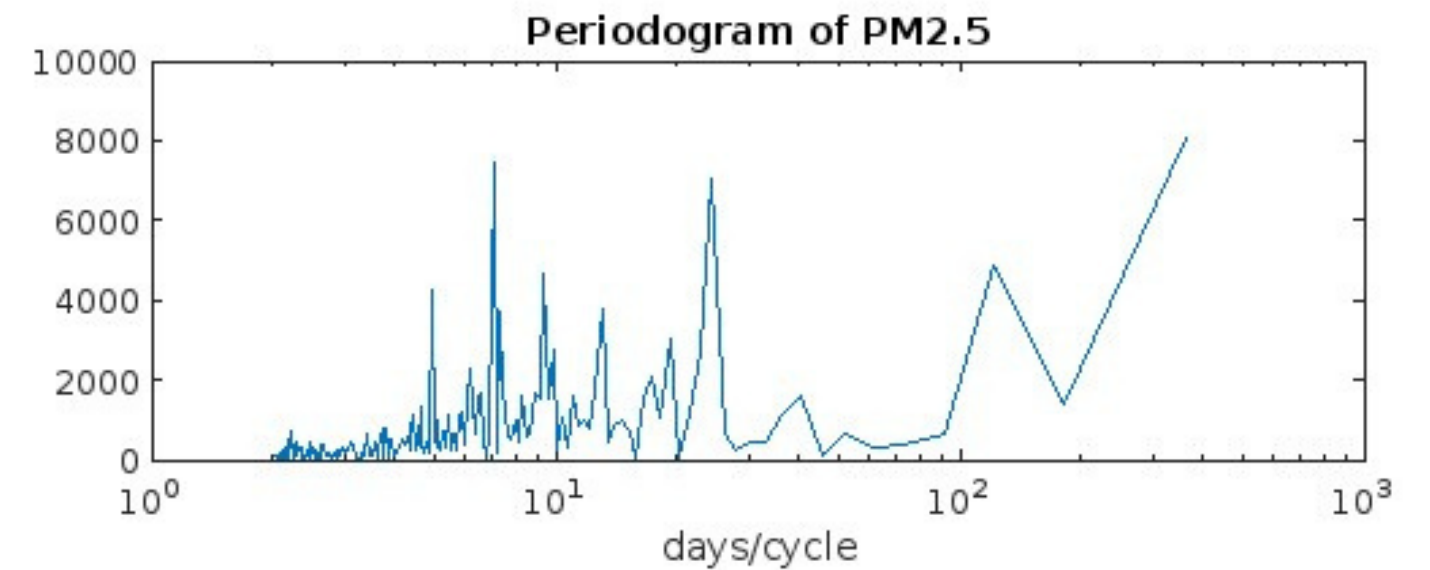
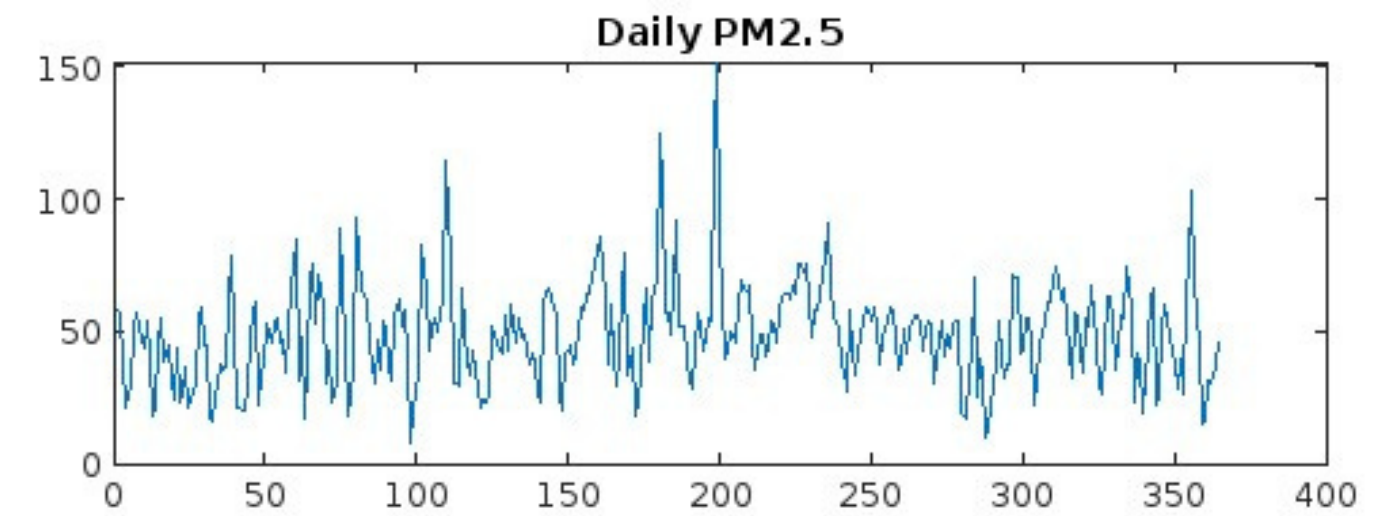
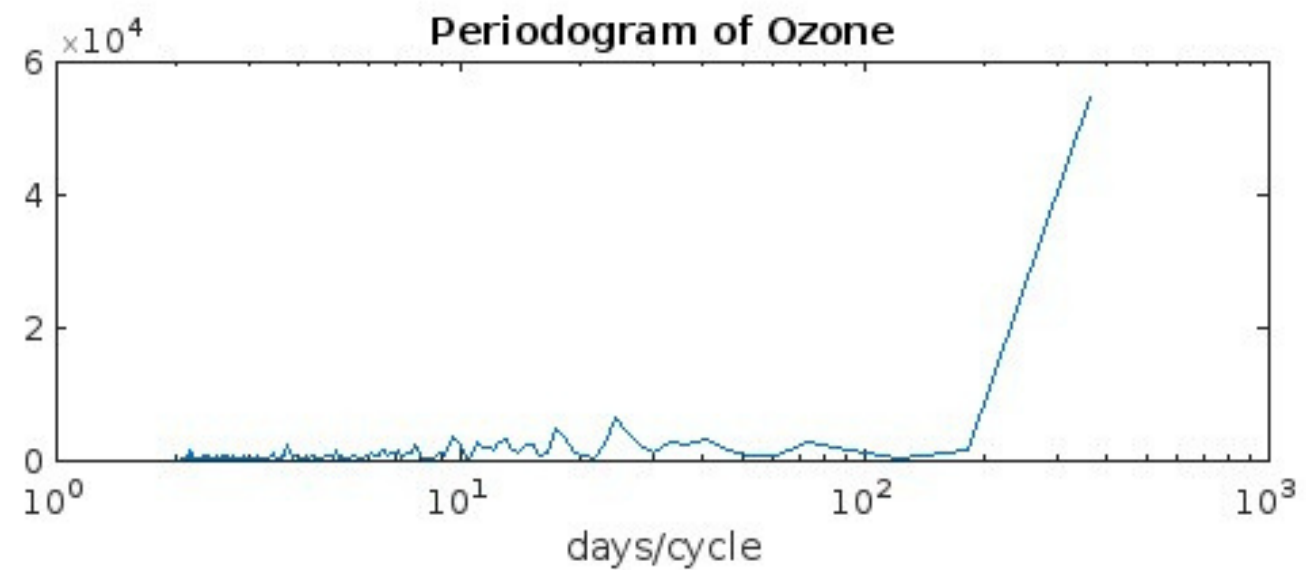
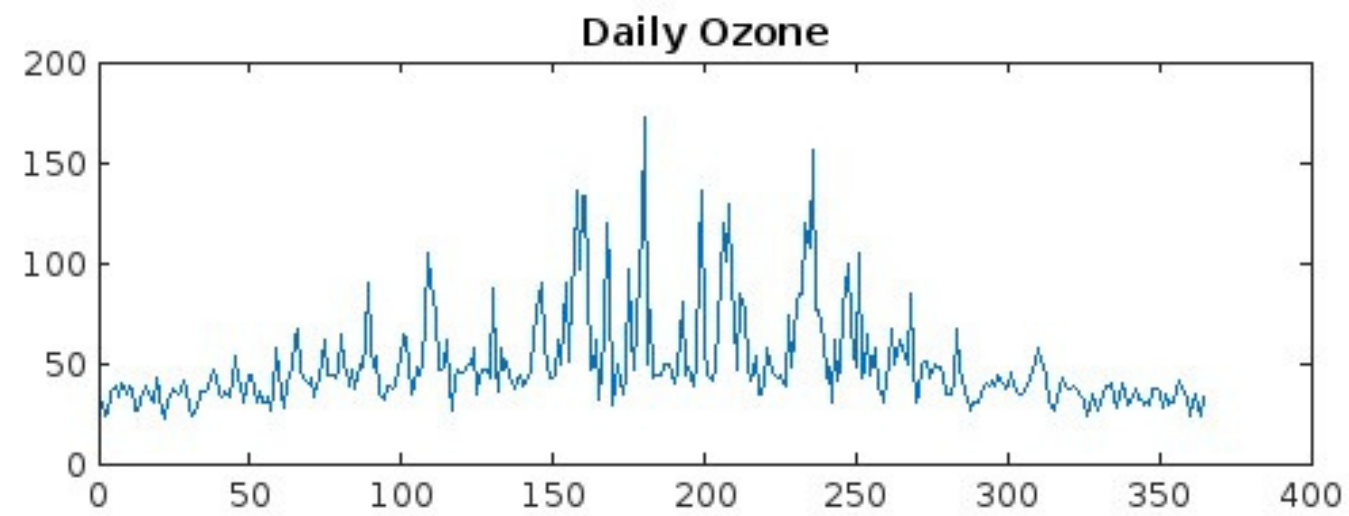
Data Analysis

Bootstrap as uncertainty analysis



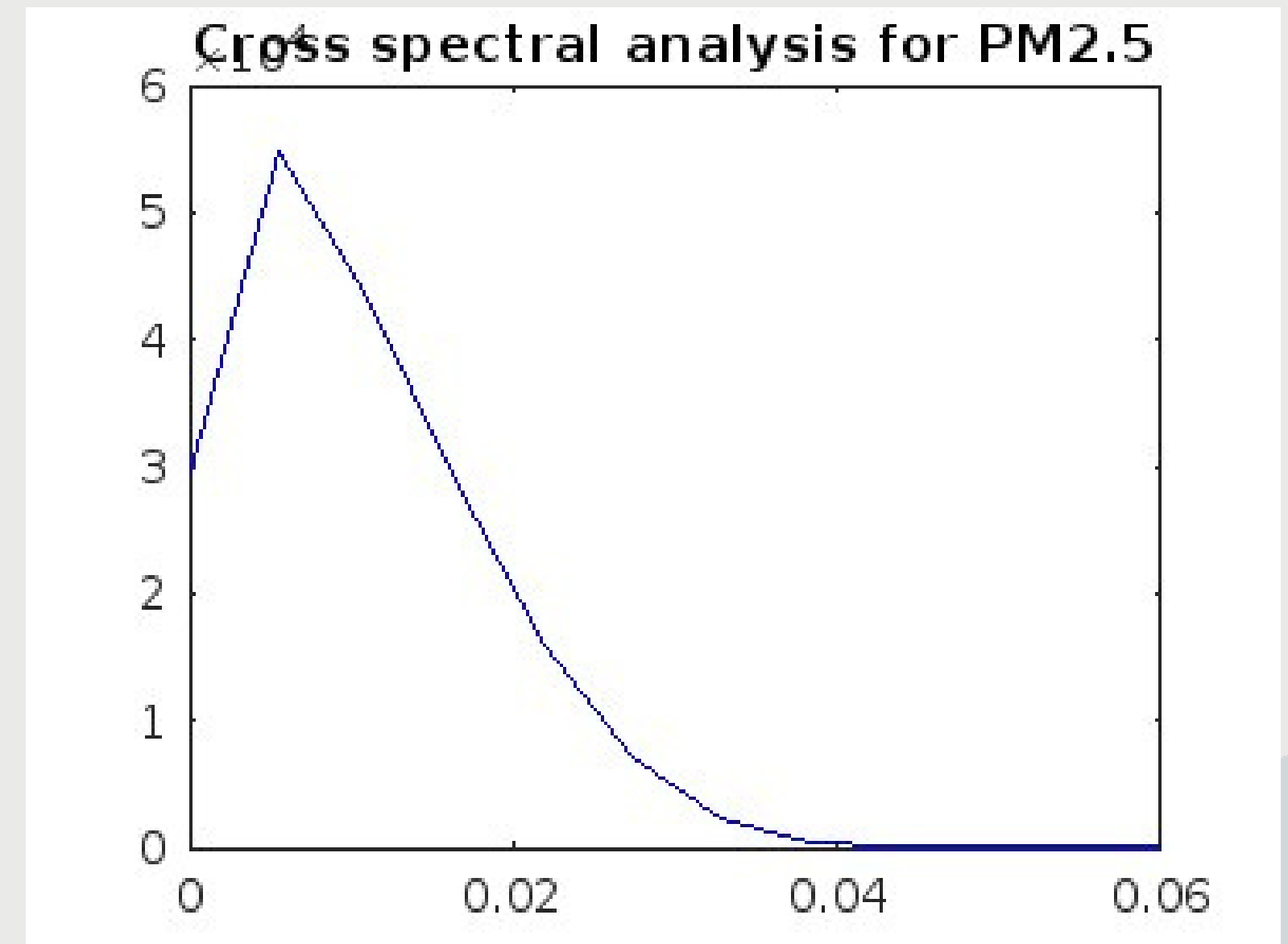
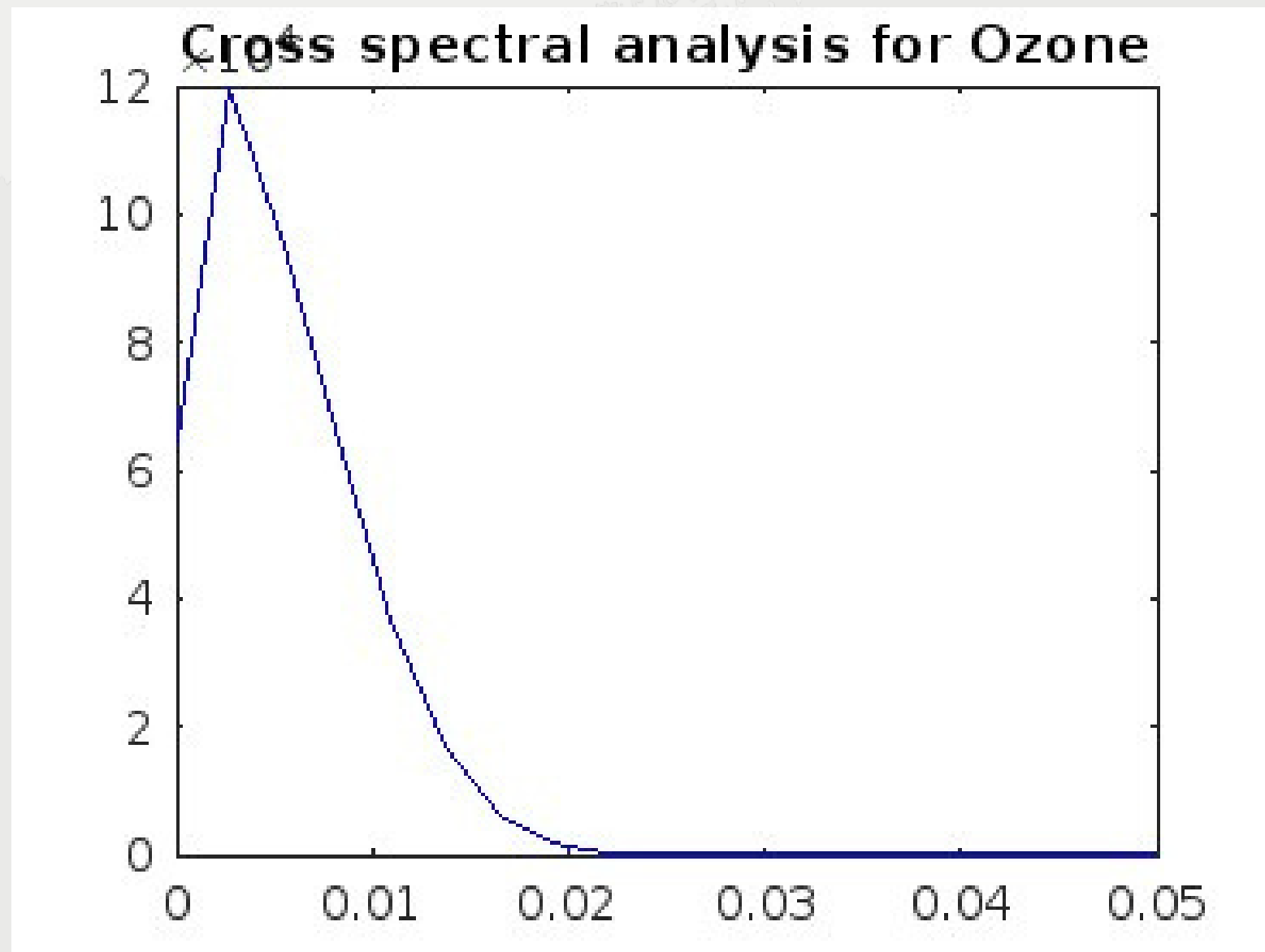
Data Analysis

Time series analysis



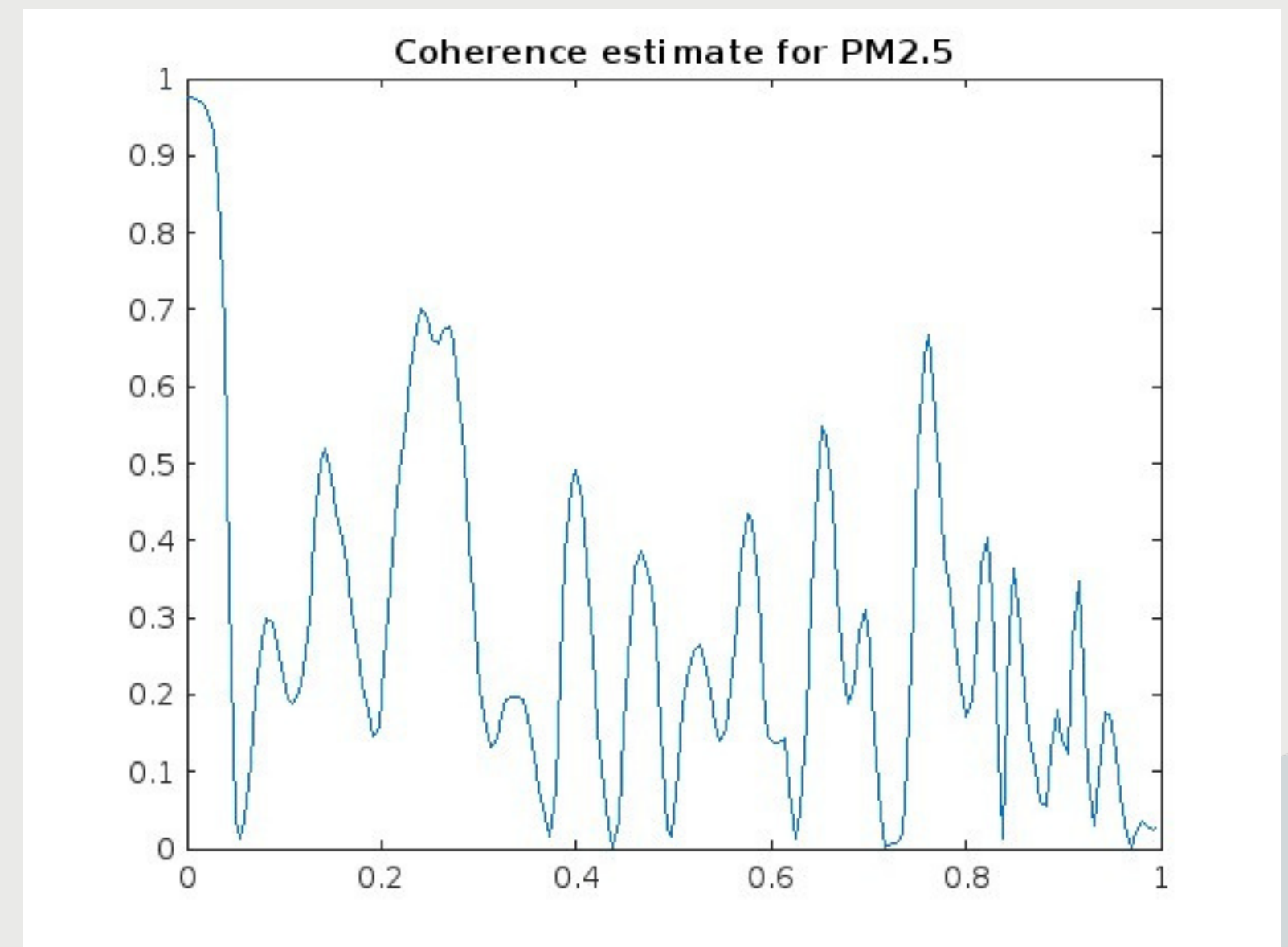
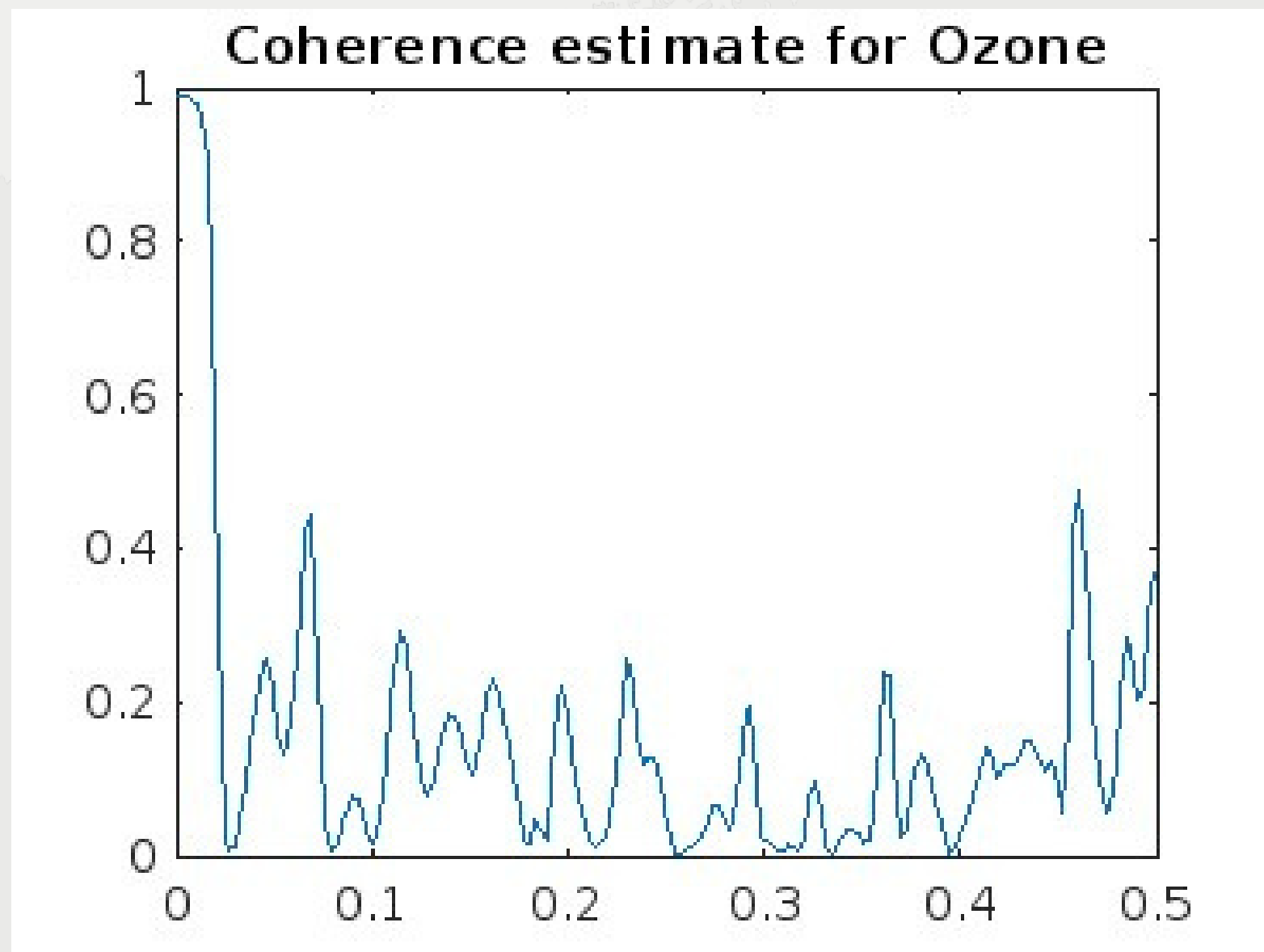
Data Analysis

Cross-spectral analysis



Data Analysis

Coherence



Citation

Corporation, V. C. (n.d.). Historical Weather data & Weather Forecast Data | Visual Crossing. <https://www.visualcrossing.com/weather-data>

U.S. Environmental Protection Agency | US EPA. (2024, April 10). US EPA. <https://www.epa.gov/>

World Air Quality Data 2024 (Updated). (2024, March 25). Kaggle. <https://www.kaggle.com/datasets/kanchana1990/world-air-quality-data-2024-updated>