# Wind Tunnel Calibration

This repository contains Python code for calibrating a wind tunnel and plotting calibration curves. The code reads experimental data from CSV files, calculates air properties, and compares two calibration methods: Pressure Transducer and Scannivalve. It then generates calibration plots.

## Data

Two datasets are used:

- `wind\_tunnel\_data.csv`: Primary wind tunnel data.

- `additional\_data.csv`: Additional wind tunnel data for calibration.

## Code Structure

- `wind\_tunnel\_calibration.ipynb`: Jupyter Notebook with the calibration code.

- `data/`: Directory containing CSV data files.

- `plots/`: Directory to save generated plots.

## How to Use

1. Ensure you have Python, Jupyter Notebook, and required libraries installed.

2. Clone this repository.

3. Place your data files in the `data/` directory.

4. Open `wind\_tunnel\_calibration.ipynb` and run the code.

5. Calibration plots will be saved in the `plots/` directory.

## Dependencies

- Python 3.x

- NumPy

- Pandas

- Matplotlib

- SciPy

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