

Multi-scale analysis of turbulence data from AIRTEC-CM urban field campaigns in Madrid



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How large (and how different) are the main eddy scales observed at two heights in urban environment?

Study under different conditions (wind, stability...)

How are the SH, TKE or u* affected by high-pass filters (e.g., 5 min) to avoid larger-scale eddies?

PRELIMINARY RESULTS*



CONCLUSIONS

Clear turbulent eddies (smaller scale) observed at the top of the building

Larger scales at the street level (spectral gap not well defined)

High-pass filter maybe exaggerated effect at the street level (double effect for SH, TKE and u*)

NEXT STEPS

Relation with: -stability

- wind direction

- wind speed...

Does this affect the turbulence-pollutants relationship?