



Continuous aerosol size distribution and light absorption measurements in Nanjing, China

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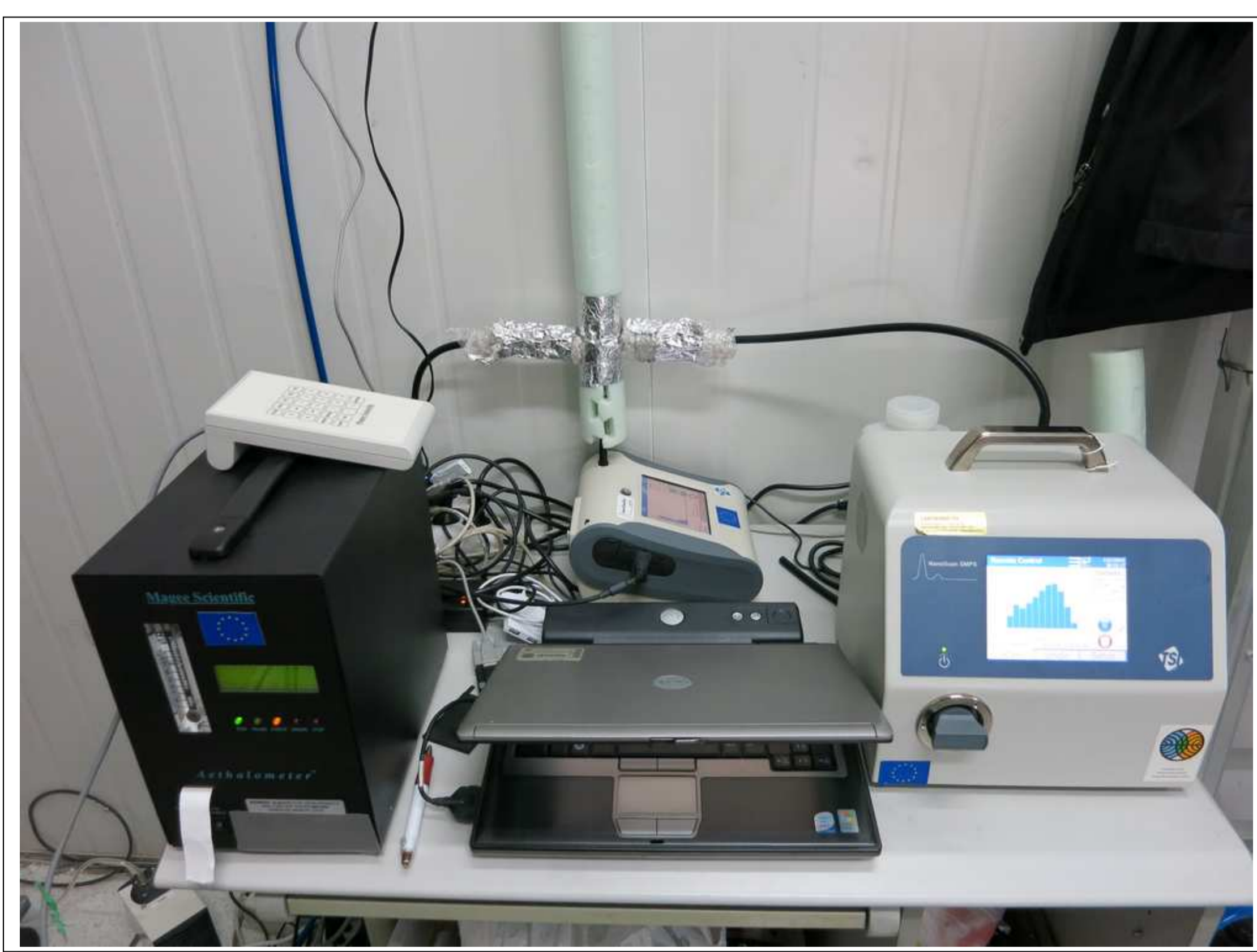
We started continuous measurements of aerosol size distribution and light absorption at Nanjing University (NJU) Xianlin campus in November 2014. Since then the hourly average particle number and black carbon concentration have been $14\,700\text{ cm}^{-3}$ and $3.1\text{ }\mu\text{g}/\text{m}^3$, respectively. The average BC/PM_{10} was 0.06, and the absorption Ångström exponent has varied between 0.4 and 1.8, indicating existence of some non-absorbing material, and/or brown carbon, in particles at times.

Our aerosol measurements at NJU Xianlin campus

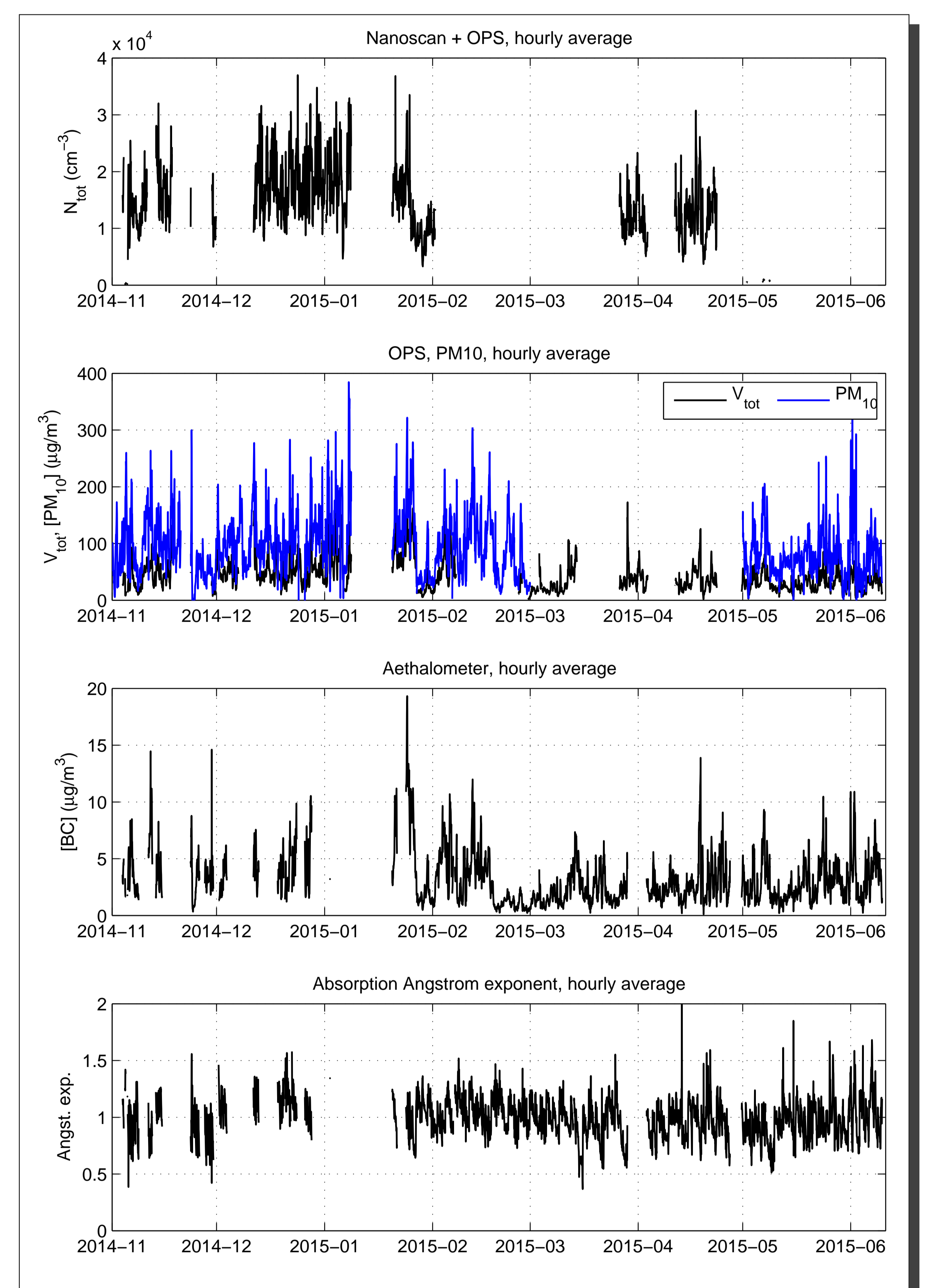
- on the rooftop of a five-floor building
- aerosol size distribution (10 nm to 10 μm) with a TSI 3910 Nanoparticle Sizer and a TSI 3330 Optical Particle Sizer
- black and brown carbon concentration with a Magee Scientific AE-42 7-wavelength (370 nm to 950 nm) aethalometer
- weather parameters with a Vaisala WXT520 weather station



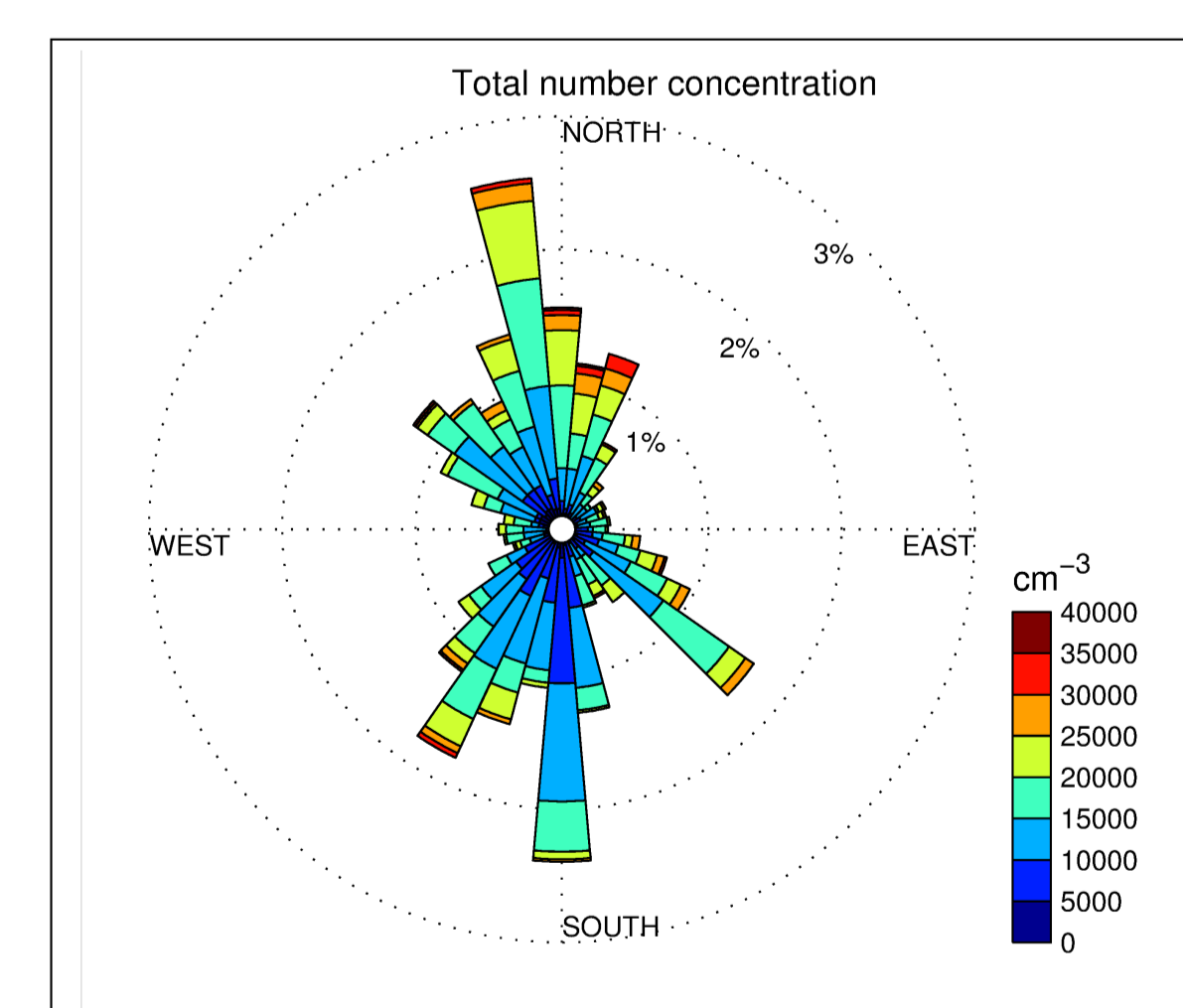
The measurement cabin on the rooftop of the School of Environment building at the NJU Xianlin campus.



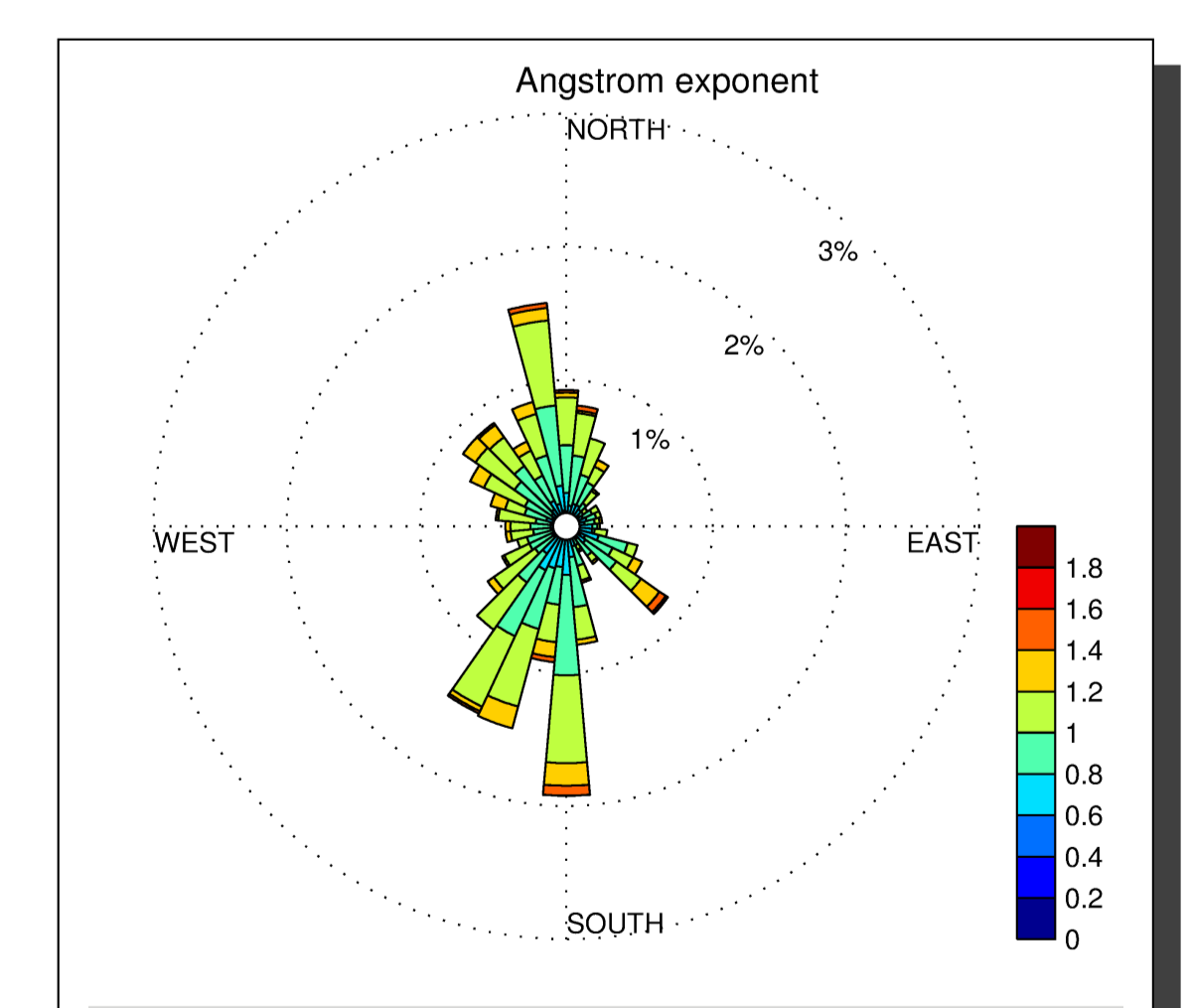
The measurement instrument suite including an aethalometer, an optical particle sampler, and a Nanoscan particle sizer.



Total number concentration, volume concentration, PM10 concentration, BC concentration, and Ångström exponent.



Total number concentration vs. wind direction.



Ångström exponent vs. wind direction.

Acknowledgements

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