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The Application of Wavelet Decomposition to Quantify the Local and Regional Sources of Ultrafine Particles in Cities

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Highlights

- Ultrafine particles (UFP) were measured in five communities in Toronto, Canada
- Wavelet decomposition was successfully applied to distinguish the contributions of local sources of UFP
- The local-neighbourhood scale sources contributed between 13 and 32% to the UFP concentration
- The local-neighbourhood scale sources exhibited limited correlation with a central site
- The traffic volume within a 2.5km buffer described 87% of the variability between sites

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