Low cost source apportionment of urban air pollution

Francis Pope[1*], Dimitris Bousiotis[1], David Beddows[1] and Gordon Allison[2]

[1]School of Geography, Earth and Environmental Sciences, University of Birmingham, [2]Dustscan Ltd, UK

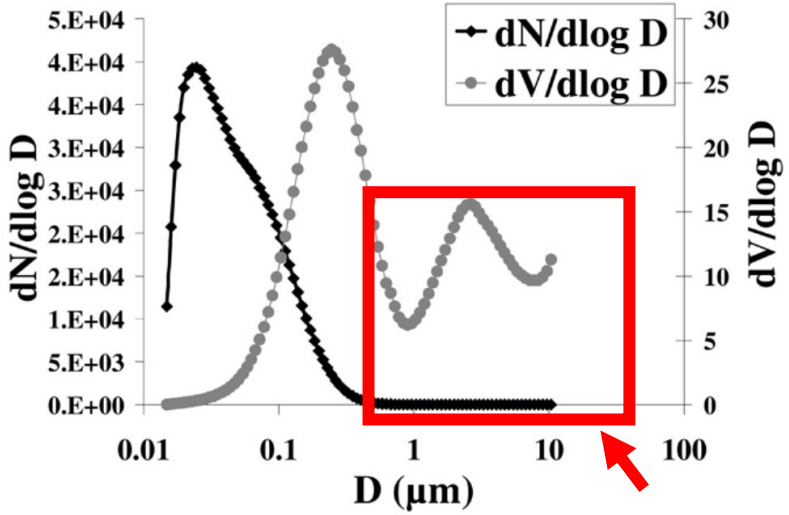
f.pope@bham.ac.uk

Source apportionment using particle size distributions from low cost optical particle counters (OPCs) provides remarkably good results.

With consistency between k-means and PMF analyses, and satisfactory comparison with outputs from regulatory grade equipment.

Works particularly well for source identification of super micron particles as exemplified with nuisance dust from construction

Potential for boundary line monitoring to be carried out more widely and for regulations to be smarter



Size range measured by low cost OPCs

Bousiotis et al. (2021) Assessing the sources of particles at an urban background site using both regulatory instruments and low-cost sensors–a comparative study. *Atmospheric Measurement Techniques*, *14*(6), pp.4139-4155. https://doi.org/10.5194/amt-14-4139-2021

Bousiotis et al. (2022). A study on the performance of low-cost sensors for source apportionment at an urban background site. Atmospheric Measurement Techniques Discussions, pp.1-40. https://doi.org/10.5194/amt-2022-84

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