Traffic-related air pollution near roadways: Discerning local impacts from background

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Conclusion

- Local pollutant concentrations were up to six times higher when the monitoring station was directly downwind of the road, compared with the upwind case.
- Pollutant concentrations decreased by a factor of four with increasing wind speeds from 4 to 40 km h\(^{-1}\) (\(\sqrt{c} = 0.5 - 0.6\)).
- Method 3 (baseline inference) was shown to reliably predict background concentrations (except PM\(_{2.5}\)), whereas downwind/upwind analysis over-predicted the influence of traffic.

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