

Problems with the very highest percentiles in air dispersion models

- True percentiles (red) versus estimates from 10 repetitions of simulation over 24 years (black)
- 95th, 98th and 99th work well (e.g. 98th percentile will be exceeded 2% of the time)
- 99.9th and 99.99th **do not work** (e.g. is 99.9th percentile exceeded 0.1% of the time?)
- Statisticians: “extreme upper percentiles very hard to estimate reliably, even with a lot of data”

