

Long range vs. local contributions to PM10 concentrations - a novel discerning method on a statistical basis

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The local concentration on PM10 is an result of a mix of locally produced contributions and long range transports. But what is the contribution of each part? On behalf of the German Federal Environmental Agency (UBA) a new statistical approach to determine the share of various parts was applied.

Base of this exploration are daily mean data from German measurement sites and data from surrounding nations. To do this several preparations step were urgently needed, e.g. those data needed to be quality controlled and gaps had to be closed.

Statistical approaches like PM10 specific circulations pattern were used to prepare the data to distinguish between long range transport and local contribution.