



Supplement of

Performance evaluation of MOMA (MOment MAtching) – a remote network calibration technique for PM_{2.5} and PM₁₀ sensors

Lena Francesca Weissert et al.

Correspondence to: Lena Francesca Weissert (lena.weissert@aeroqual.com)

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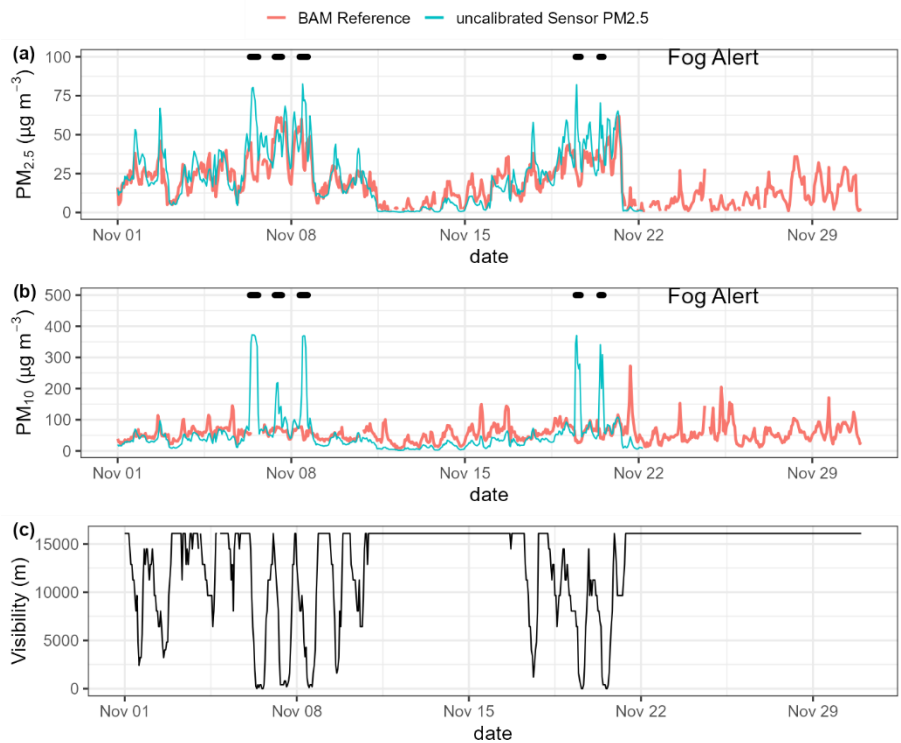
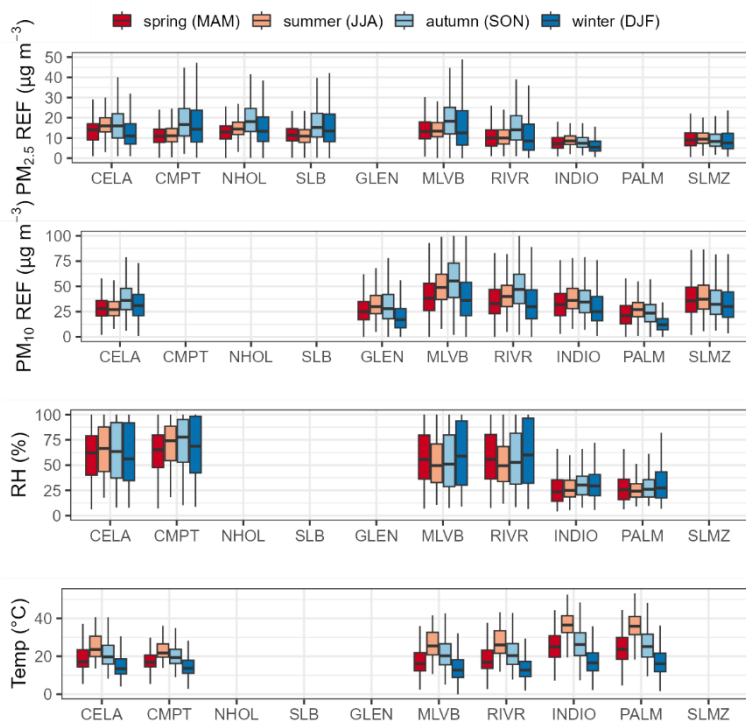


Figure S1: Timeseries for November 2021 – showing the uncalibrated and BAM reference PM_{2.5} (a) and PM₁₀ (b) as well as the visibility measured by the NOAA weather station located at Riverside Airport (c) to illustrate the impact of fog.

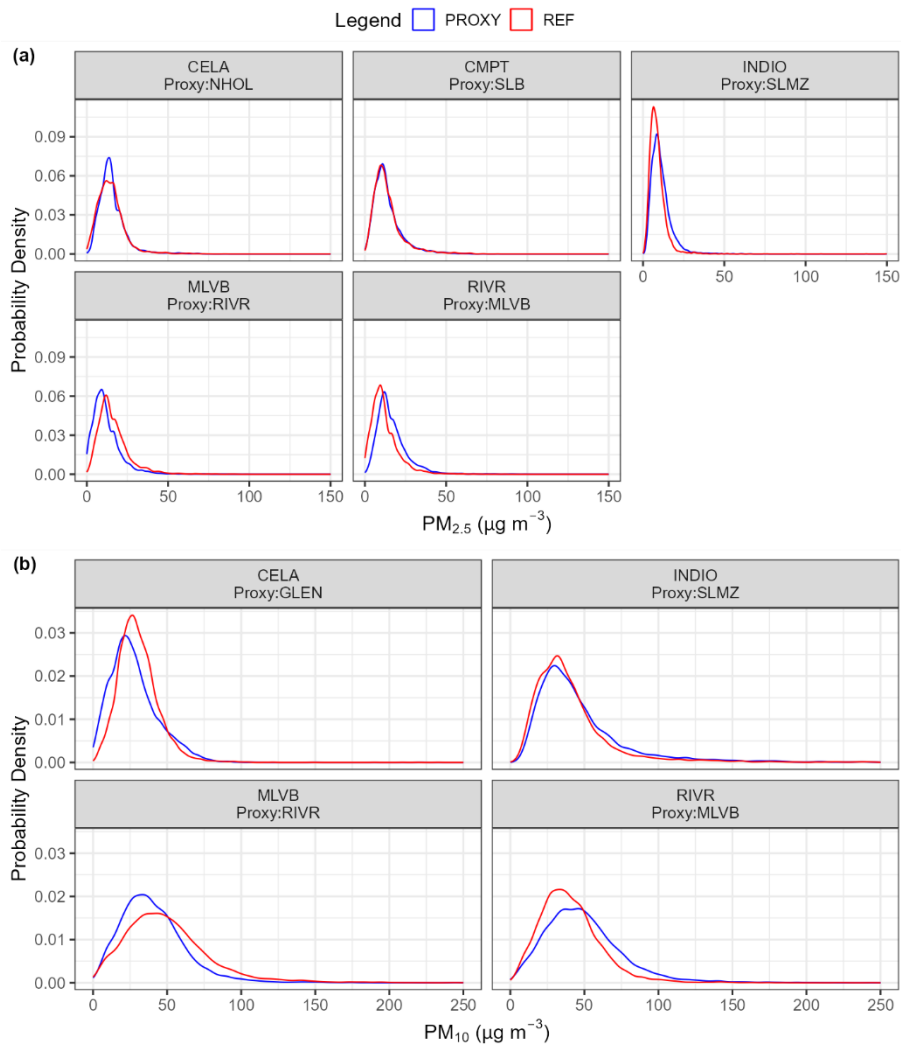
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20 **Figure S2: Boxplots showing the seasonal PM_{2.5} and PM₁₀ reference variations in 2021 and the sensor RH and Temperature observed at the co-location sites. The boxplots are coloured by season (spring (MAM): March, April, May, summer (JJA): June, July, August, autumn (SON): September, October, November, winter (DJF): December, January, February).**



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Figure S3: Probability distributions for the Reference $PM_{2.5}$ (a) and PM_{10} (b) versus the nearest Proxy $PM_{2.5}$ and PM_{10} , respectively.

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Table S1. AMS information based on South Coast AQMD Monitoring Network Plan

<http://www.aqmd.gov/home/air-quality/clean-air-plans/monitoring-network-plan>.

AMS	PM _{2.5}		PM ₁₀	
	Continuous	FRM Schedule	Continuous	FRM Schedule
RIVR	BAM1020	Daily	BAM1020	1:3 days
MLVB	BAM1020	Daily	BAM1020	1:6 days
SNBO	-	1:3 days	BAM1020	-
CRES	BAM1020	-	-	1:6 days
PALM	-	1:3 days	Thermo 5014i	-
INDIO	BAM1020	1:12 days	Thermo 5014i	1:6 days
GLEN	BAM1020	-	BAM1020	-
ANA	BAM1020	Daily	BAM1020	-
CELA	BAM1020	Daily	BAM1020	1:6 days
CMPT	BAM1020	Daily	-	-
NHOL	BAM1020	-	-	-
SLMZ ¹⁾	T640	-	T640	-

¹⁾ The T640 at Saul Martinez (SLMZ) is run by a special monitoring project and is not part of the Ambient Monitoring Network.

Table S2. Parameter code used to do retrieve the speciation data from the RAQSAPI package and the parameter it refers to as well as the group it has been assigned to.

Code	Value represented	Category	Collection Description
88104	Aluminum PM2.5 LC	Crustal Material	Met One SASS/SuperSASS Teflon
88111	Calcium PM2.5 LC	Crustal Material	Met One SASS/SuperSASS Teflon
88126	Iron PM2.5 LC	Crustal Material	Met One SASS/SuperSASS Teflon
88140	Magnesium	Crustal Material	Met One SASS/SuperSASS Teflon
88165	Silicon PM2.5 LC	Crustal Material	Met One SASS/SuperSASS Teflon
88180	Potassium	Crustal Material	Met One SASS/SuperSASS Teflon
88184	Sodium PM2.5 LC	Trace Ions	Met One SASS/SuperSASS Teflon
88203	Chloride	Trace Ions	Met One SASS/SuperSASS Teflon
88301	Ammonium	Secondary Ions	Met One SASS/SuperSASS Teflon
88303	Potassium Ion	Trace Ions	Met One SASS/SuperSASS Teflon
88306	Total Nitrate	Secondary Ions	Met One SASS/SuperSASS Teflon
88381	EC PM2.5 LC TOT	Elemental Carbon	URG 3000 N w/Pall Quartz filter and Cyclone Inlet
88382	OC PM2.5 LC TOT	Organic Carbon	URG 3000 N w/Pall Quartz filter and Cyclone Inlet
88403	Sulfate PM2.5 LC	Secondary Ions	Met One SASS/SuperSASS Teflon