Supplementary Information for Calibrating Networks of Low-Cost Air Quality Sensors

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Table S1: *Site location of each Love My Air sensor, as well as summary statistics of minute-level measurements from the co-located sensors included in the analysis*

					$PM_{2.5}$ (μg/m³)			Temperature (⁰C)	RH (%)	Dewpoint (⁰C)
Sensor ID	**Co-location Information**	**Latitude**	**Longitude**	**Minutes operational**	**Mean**	**Median**	**Min-Max**	**Mean**	**Mean**	**Mean**
CS2	Co-located at I25 Globeville	39.786	-104.989	211,770	15	11	0 - 207	24.2	60.1	14.2
CS5	Co-located at La Casa	39.779	-105.005	190,531	14	10	0 - 209	21.7	66.5	13.1
CS13	Co-located at CAMP	39.751	-104.988	206,969	14	10	0 - 177	25.7	52.2	13.1
CS16	Co-located at I25 Denver	39.732	-105.015	206,338	14	11	0 - 303	25.6	30.8	3.5

Table S2: *Performance of the calibration models using corrections C3 and C4 as captured using root mean square error (RMSE), and Pearson correlation (R) over the weeks of co-location alone. LOSO CV was used to prevent overfitting in the machine learning models*

ID	**Name**	**Equation**	**C3** *Correction developed using measurements made in the first two weeks of January* **(1318 measurements)**		**C4** *Correction developed using measurements from the first two weeks of January and the first two weeks in May* **(2973 measurements)**	
			R	**RMSE ($\mu g/m^3$)**	**R**	**RMSE ($\mu g/m^3$)**
	Raw Love My Air measurements					
0	Raw		0.907	5.008	0.898	3.983
	Multivariate Regression (LOSO CV)					
1	Linear	$PM_{2.5, corrected} = PM_{2.5} \times s1 + b$	0.907	3.244	0.898	2.591
2	+RH	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + RH \times s_2 + b$	0.915	3.110	0.909	2.453
3	+T	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + T \times s_2 + b$	0.909	3.206	0.900	2.567
4	+D	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + D \times s_2 + b$	0.910	3.199	0.899	2.568
5	+RH x T	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + RH \times s_2 + T \times s_3 + RH \times T \times s_4 + b$	0.915	3.103	0.911	2.424
6	+RH x D	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + RH \times s_2 + D \times s_3 + RH \times D \times s_4 + b$	0.916	3.087	0.909	2.451
7	+D x T	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + D \times s_2 + T \times s_3 + D \times T \times s_4 + b$	0.914	3.118	0.908	2.457
8	+RH x T x D	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + RH \times s_2 + T \times s_3 + D \times s_4 + RH \times T \times s_5 + RH \times D \times s_6 + T \times D \times s_7 + RH \times T \times D \times s_8 + b$	0.918	3.051	0.914	2.385
9	PM x RH	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + RH \times s_2 + RH \times PM_{2.5} \times s_3 + b$	0.918	3.051	0.913	2.402
10	PM x D	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + D \times s_2 + D \times PM_{2.5} \times s_3 + b$	0.911	3.179	0.901	2.555
11	PM x T	$PM_{2.5, corrected} = PM_{2.5} \times s_1 + T \times s_2 + T \times PM_{2.5} \times s_3$	0.911	3.169	0.900	2.567

		+ b				
12	PM x nonlinear RH	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + \frac{RH^2}{(1-RH)} \times s_2 + \frac{RH^2}{(1-RH)} \times PM_{2.5} \times s_3 + b$	0.926	2.898	0.920	2.299
13	PM x RH x T	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + T \times s_3 + PM_{2.5} \times RH \times s_4 + PM_{2.5} \times T \times s_5 + RH \times T \times s_6 + PM_{2.5} \times RH \times T \times s_7 + b$	0.919	3.041	0.914	2.383
14	PM x RH x D	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + D \times s_3 + PM_{2.5} \times RH \times s_4 + PM_{2.5} \times D \times s_5 + RH \times D \times s_6 + PM_{2.5} \times RH \times D \times s_7 + b$	0.920	3.013	0.914	2.388
15	PM x T x D	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + T \times s_2 + D \times s_3 + PM_{2.5} \times T \times s_4 + PM_{2.5} \times D \times s_5 + T \times D \times s_6 + PM_{2.5} \times T \times D \times s_7 + b$	0.919	3.035	0.913	2.403
16	PM x RH x T x D	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + T \times s_3 + D \times s_4 + PM_{2.5} \times RH \times s_5 + PM_{2.5} \times T \times s_6 + T \times RH \times s_7 + PM_{2.5} \times D \times s_8 + D \times RH \times s_9 + D \times T \times s_{10} + PM_{2.5} \times RH \times T \times s_{11} + PM_{2.5} \times RH \times D \times s_{12} + PM_{2.5} \times D \times T \times s_{13} + D \times RH \times T \times s_{14} + PM_{2.5} \times RH \times T \times D \times s_{15} + b$	0.931	2.813	0.921	2.295
	Machine Learning (LOSO CV)					
17	Random Forest	$PM_{2.5,\ corrected} = f(PM_{2.5}, T, RH)$	0.982	1.506	0.978	1.234
18	Neural Network (One hidden layer)	$PM_{2.5,\ corrected} = f(PM_{2.5}, T, RH)$	0.918	3.049		
19	Gradient Boosting	$PM_{2.5,\ corrected} = f(PM_{2.5}, T, RH)$	0.938	2.683	0.926	2.225
20	SuperLearner	$PM_{2.5,\ corrected} = f(PM_{2.5}, T, RH)$	0.954	2.309	0.925	2.238
21	Random Forest	$PM_{2.5,\ corrected} = f(PM_{2.5}, T, RH, D, cos\_time)$	0.983	1.548	0.962	1.607

***Table S3**: Performance of the calibration models as captured using root mean square error (RMSE), normalized RMSE, and Pearson correlation (R) for true $PM_{2.5} > 30\ \mu g/m^3$ and $PM_{2.5} \leq 30\ \mu g/m^3$. LOSO CV was used to prevent overfitting in the machine learning models*

			$PM_{2.5} > 30\ \mu g/m^3$ (n = 1038 measurements)	**$PM_{2.5} \leq 30\ \mu g/m^3$ (n=26300 measurements)**

ID	Name	Equation	**C1** *Correction developed on data during the entire period of network operation*		**C2** *On-the-fly correction developed using data for the same week of measurement*		**C3** *Correction developed using measurements made in the first two weeks of January*		**C4** *Correction developed using measurements from the first two weeks of January and the first two weeks in May*		**C1** *Correction developed on data during the entire period of network operation*		**C2** *On-the-fly correction developed using data for the same week of measurement*		**C3** *Correction developed using measurements made in the first two weeks of January*		**C4** *Correction developed using measurements from the first two weeks of January and the first two weeks in May*	
			R	**RMSE**	**R**	**RMSE**	**R**	**RMSE**	**R**	**RMSE**	**R**	**RMSE**	**R**	**RMSE**	**R**	**RMSE**	**R**	**RMSE**
	Raw Love My Air measurements																	
0	Raw		0.797	14.928 (0.350)	-	-	-	-	-	-	0.915	5.891 (0.646)	-	-	-	-	-	-
	Multivariate Regression (LOSO CV)																	
1	Linear	$PM_{2.5,\ corrected} = PM_{2.5} \times s1 + b$	0.797	11.263 (0.264)	0.834	9.522 (0.223)	0.797	10.556 (0.248)	0.797	11.105 (0.260)	0.915	2.676 (0.294)	0.921	2.414 (0.265)	0.915	2.869 (0.315)	0.915	2.705 (0.297)
2	+RH	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + i$	0.802	11.083 (0.260)	0.838	9.316 (0.218)	0.806	9.379 (0.220)	0.804	9.979 (0.234)	0.917	2.650 (0.291)	0.927	2.311 (0.254)	0.913	3.184 (0.349)	0.915	2.921 (0.320)
3	+T	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + T \times s_2 + i$	0.799	11.219 (0.263)	0.839	9.246 (0.217)	0.803	9.395 (0.220)	0.801	10.418 (0.244)	0.916	2.667 (0.293)	0.928	2.311 (0.254)	0.911	3.567 (0.391)	0.915	2.856 (0.313)
4	+D	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + D \times s_2 + i$	0.797	11.267 (0.264)	0.841	9.285 (0.218)	0.791	11.339 (0.266)	0.795	11.361 (0.266)	0.916	2.670 (0.293)	0.925	2.354 (0.258)	0.895	3.043 (0.334)	0.910	2.724 (0.299)
5	+RH x T	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + T \times s_3 + RH \times T \times s_4 + i$	0.806	10.772 (0.253)	0.852	8.866 (0.208)	0.804	9.636 (0.226)	0.806	9.868 (0.231)	0.923	2.543 (0.279)	0.933	2.224 (0.244)	0.917	2.954 (0.324)	0.922	2.790 (0.306)
6	+RH x D	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + D \times s_3 + RH \times D \times s_4 + i$	0.803	11.031 (0.259)	0.848	8.896 (0.209)	0.803	9.598 (0.225)	0.804	9.883 (0.232)	0.918	2.635 (0.289)	0.933	2.222 (0.244)	0.886	3.573 (0.392)	0.916	2.932 (0.322)
7	+D x T	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + D \times s_2 + T \times s_3 + D \times T \times s_4 + i$	0.799	11.211 (0.263)	0.847	8.946 (0.210)	0.789	8.981 (0.211)	0.798	10.033 (0.235)	0.916	2.668 (0.293)	0.933	2.231 (0.245)	0.863	5.529 (0.607)	0.908	3.226 (0.354)
8	+RH x T x D	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + T \times s_3 + D \times s_4 + RH \times T \times s_5 + RH \times D \times s_6 + T \times D \times s_7 + RH \times T \times D \times s_8 + i$	0.809	10.723 (0.251)	0.853	8.713 (0.204)	0.746	10.822 (0.254)	0.795	9.981 (0.234)	0.924	2.532 (0.278)	0.936	2.172 (0.238)	0.700	6.887 (0.756)	0.915	3.119 (0.342)
9	PM x RH	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + RH \times s_2 + RH \times PM_{2.5} \times s_3 + i$	0.811	10.943 (0.257)	0.839	9.224 (0.216)	0.807	8.896 (0.209)	0.806	9.148 (0.214)	0.917	2.651 (0.291)	0.931	2.260 (0.248)	0.908	3.617 (0.397)	0.909	3.383 (0.371)
10	PM x D	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + D \times s_2 + D \times PM_{2.5} \times s_3 + i$	0.810	10.640 (0.249)	0.852	9.027 (0.212)	0.710	15.827 (0.371)	0.760	13.433 (0.315)	0.915	2.649 (0.291)	0.927	2.314 (0.254)	0.860	3.285 (0.360)	0.899	2.776 (0.305)
11	PM x T	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + T \times s_2 + T \times PM_{2.5} \times s_3 + i$	0.815	10.813 (0.254)	0.848	8.960 (0.210)	0.771	12.444 (0.292)	0.803	10.219 (0.240)	0.915	2.675 (0.293)	0.932	2.243 (0.246)	0.879	6.159 (0.676)	0.915	2.892 (0.317)
12	PM x nonlinear	$PM_{2.5,\ corrected} = PM_{2.5} \times s_1 + \frac{RH^2}{(1-RH)} \times$	0.821	10.695 (0.251)	0.844	9.157 (0.215)	0.815	9.322 (0.219)	0.814	9.712 (0.228)	0.923	2.579 (0.283)	0.927	2.331 (0.256)	0.920	3.063 (0.336)	0.920	2.884 (0.316)

	RH	$s_2 + \frac{RH^2}{(1-RH)}$ x $PM_{2.5}$ x s_3 + i																
13	PM x RH x T	$PM_{2.5,\ corrected}$ = $PM_{2.5}$ x s_1 + RH x s_2 + T x s_3 + $PM_{2.5}$ x RH x s_4 + $PM_{2.5}$ x T x s_5 + RH x T x s_6 + $PM_{2.5}$ x RH x T x s_7 + i	0.816	10.337 (0.242)	0.860	8.584 (0.201)	0.736	12.672 (0.297)	0.799	10.155 (0.238)	0.926	2.489 (0.273)	0.939	2.124 (0.233)	0.860	5.820 (0.639)	0.916	2.940 (0.323)
14	PM x RH x D	$PM_{2.5,\ corrected}$ = $PM_{2.5}$ x s_1 + RH x s_2 + D x s_3 + $PM_{2.5}$ x RH x s_4 + $PM_{2.5}$ x D x s_5 + RH x D x s_6 + $PM_{2.5}$ x RH x D x s_7 + i	0.817	10.496 (0.246)	0.860	8.528 (0.200)	0.677	16.862 (0.395)	0.775	9.830 (0.230)	0.917	2.624 (0.288)	0.939	2.121 (0.233)	0.850	6.634 (0.728)	0.901	3.618 (0.397)
15	PM x T x D	$PM_{2.5,\ corrected}$ = $PM_{2.5}$ x s_1 + T x s_2 + D x s_3 + $PM_{2.5}$ x T x s_4 + $PM_{2.5}$ x D x s_5 + T x D x s_6 + $PM_{2.5}$ x T x D x s_7 + i	0.813	10.575 (0.248)	0.860	8.543 (0.200)	0.529	21.253 (0.498)	0.760	9.819 (0.230)	0.915	2.648 (0.291)	0.939	2.122 (0.233)	0.700	4.843 (0.531)	0.889	4.236 (0.465)
16	PM x RH x T x D	$PM_{2.5,\ corrected}$ = $PM_{2.5}$ x s_1 + RH x s_2 + T x s_3 + D x s_4 + $PM_{2.5}$ x RH x s_5 + $PM_{2.5}$ x T x s_6 + T x RH x s_7 + $PM_{2.5}$ x D x s_8 + D x RH x s_9 + D x T x s_{10} + $PM_{2.5}$ x RH x T x s_{11} + $PM_{2.5}$ x RH x D x s_{12} + $PM_{2.5}$ x D x T x s_{13} + D x RH x T x s_{14} + $PM_{2.5}$ x RH x T x D x s_{15} + i	0.829	10.017 (0.235)	0.872	8.103 (0.190)	0.204	81.527 (1.911)	0.723	12.778 (0.300)	0.926	2.475 (0.272)	0.943	2.050 (0.225)	0.317	29.433 (3.229)	0.702	6.392 (0.701)
	Machine Learning (LOSO CV)																	
17	Random Forest	$PM_{2.5,\ corrected}$ = f($PM_{2.5}$, T, RH)	0.940	5.380 (0.126)	0.953	4.670 (0.109)	0.651	13.773 (0.323)	0.610	15.006 (0.352)	0.973	1.382 (0.152)	0.982	1.151 (0.126)	0.903	2.922 (0.321)	0.917	2.513 (0.276)
18	Neural Network (One hidden layer)	$PM_{2.5,\ corrected}$ = f($PM_{2.5}$, T, RH)	0.808	10.246 (0.240)	0.855	8.914 (0.209)	0.815	9.994 (0.234)	0.678	12.079 (0.283)	0.902	2.661 (0.292)	0.920	2.388 (0.262)	0.905	3.026 (0.332)	0.878	4.177 (0.458)
19	Gradient Boosting	$PM_{2.5,\ corrected}$ = f($PM_{2.5}$, T, RH)	0.849	9.122 (0.214)	0.888	7.583 (0.178)	0.546	13.086 (0.307)	0.521	13.195 (0.309)	0.926	2.298 (0.252)	0.944	1.995 (0.219)	0.899	2.946 (0.323)	0.897	2.899 (0.318)
20	SuperLearner	$PM_{2.5,\ corrected}$ = f($PM_{2.5}$, T, RH)	0.854	8.912 (0.209)	0.923	6.359 (0.149)	0.636	12.740 (0.299)	0.676	12.139 (0.285)	0.926	2.311	0.950	1.898 (0.208)	0.898	3.089 (0.339)	0.910	2.743 (0.301)
21	Random Forest	For corrections C1 $PM_{2.5,\ corrected}$ = f($PM_{2.5}$, T, RH, D, cos_time, cos_month, sin_month) For corrections C2, C3, C4 $PM_{2.5,\ corrected}$ = f($PM_{2.5}$, T, RH, D, cos_time)	0.951	4.819 (0.113)	0.962	4.180 (0.098)	0.512	20.913 (0.490)	0.536	19.551 (0.458)	0.926	2.311 (0.254)	0.986	1.018 (0.112)	0.882	3.011 (0.330)	0.897	2.659 (0.292)

***Table S4**: Performance of the calibration models using the C1 correction as captured using root mean square error (RMSE), normalized RMSE, and Pearson correlation (R) for true $PM_{2.5}$ > 30 μg/m^3 and $PM_{2.5}$ ≤ 30 μg/m^3. LOBD CV was used to prevent overfitting in the machine learning models*

		$PM_{2.5}$ > 30 μg/m^3 (n = 1038 measurements)	**$PM_{2.5}$ ≤ 30 μg/m^3 (n=27338 measurements)**

ID	Machine Learning (LOBD CV)		R	RMSE ($\mu g/m^3$)	R	RMSE ($\mu g/m^3$)
17	Random Forest	$PM_{2.5, corrected} = f(PM_{2.5}, T, RH)$	0.939	5.415 (0.127)	0.974	1.372 (0.151)
18	Neural Network (One hidden layer)	$PM_{2.5, corrected} = f(PM_{2.5}, T, RH)$	0.808	10.200 (0.239)	0.902	2.666 (0.293)
19	Gradient Boosting	$PM_{2.5, corrected} = f(PM_{2.5}, T, RH)$	0.863	8.536 (0.200)	0.930	2.245 (0.246)
20	SuperLearner	$PM_{2.5, corrected} = f(PM_{2.5}, T, RH)$	0.885	7.988 (0.187)	0.930	2.240 (0.246)
21	Random Forest	$PM_{2.5, corrected} = f(PM_{2.5}, T, RH, D, cos\_time, cos\_month, sin\_month)$	0.952	4.724 (0.111)	0.981	1.181 (0.130)

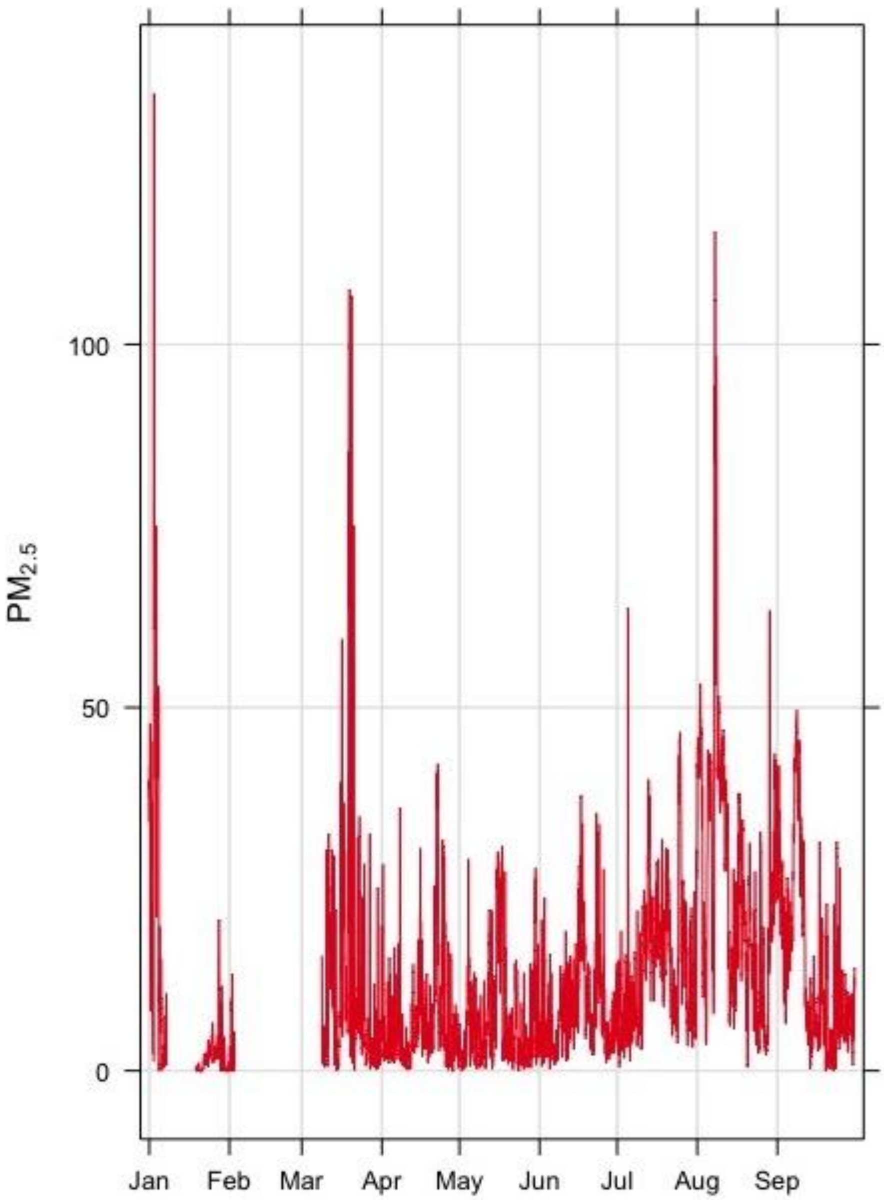

Figure S1: *Hourly averaged $PM_{2.5}$ time-series of the Love My Air sensor CS13, co-located at the CAMP reference site*

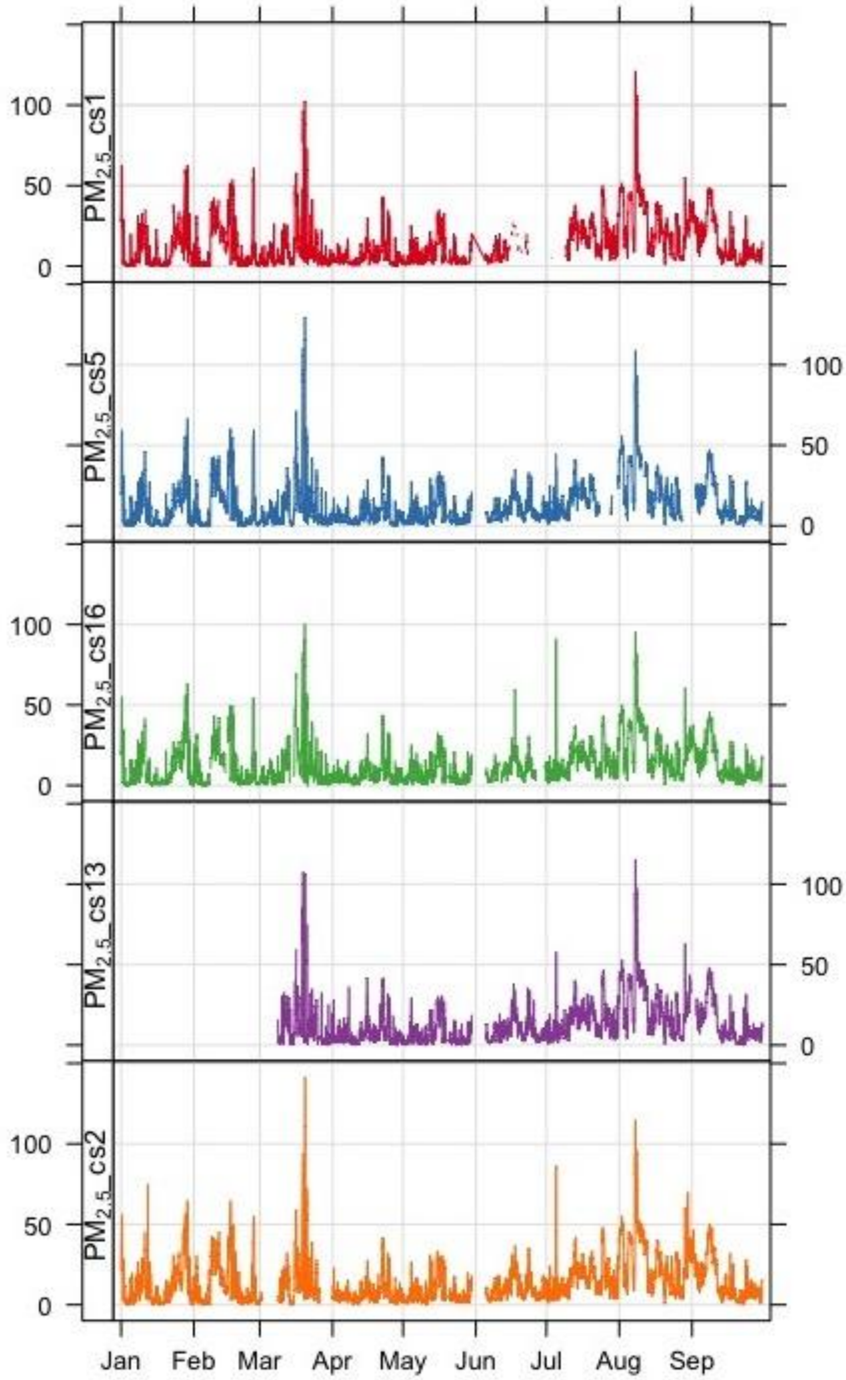

Figure S2*: Hourly averaged $PM_{2.5}$ time-series of all Love My Air sensors co-located with reference monitors in Denver*

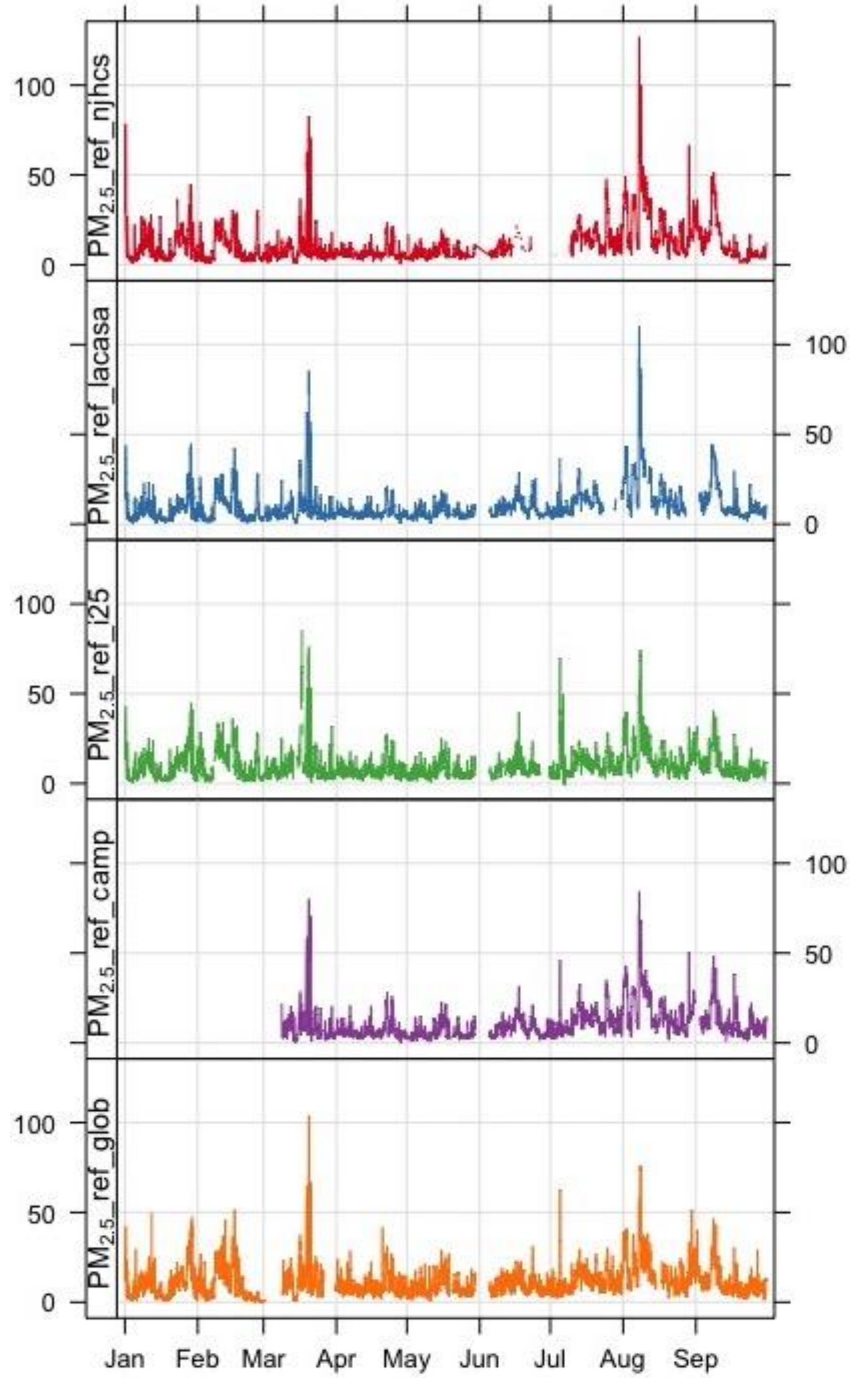

Figure S3*: Hourly averaged $PM_{2.5}$ time-series of all reference air quality monitors in Denver*

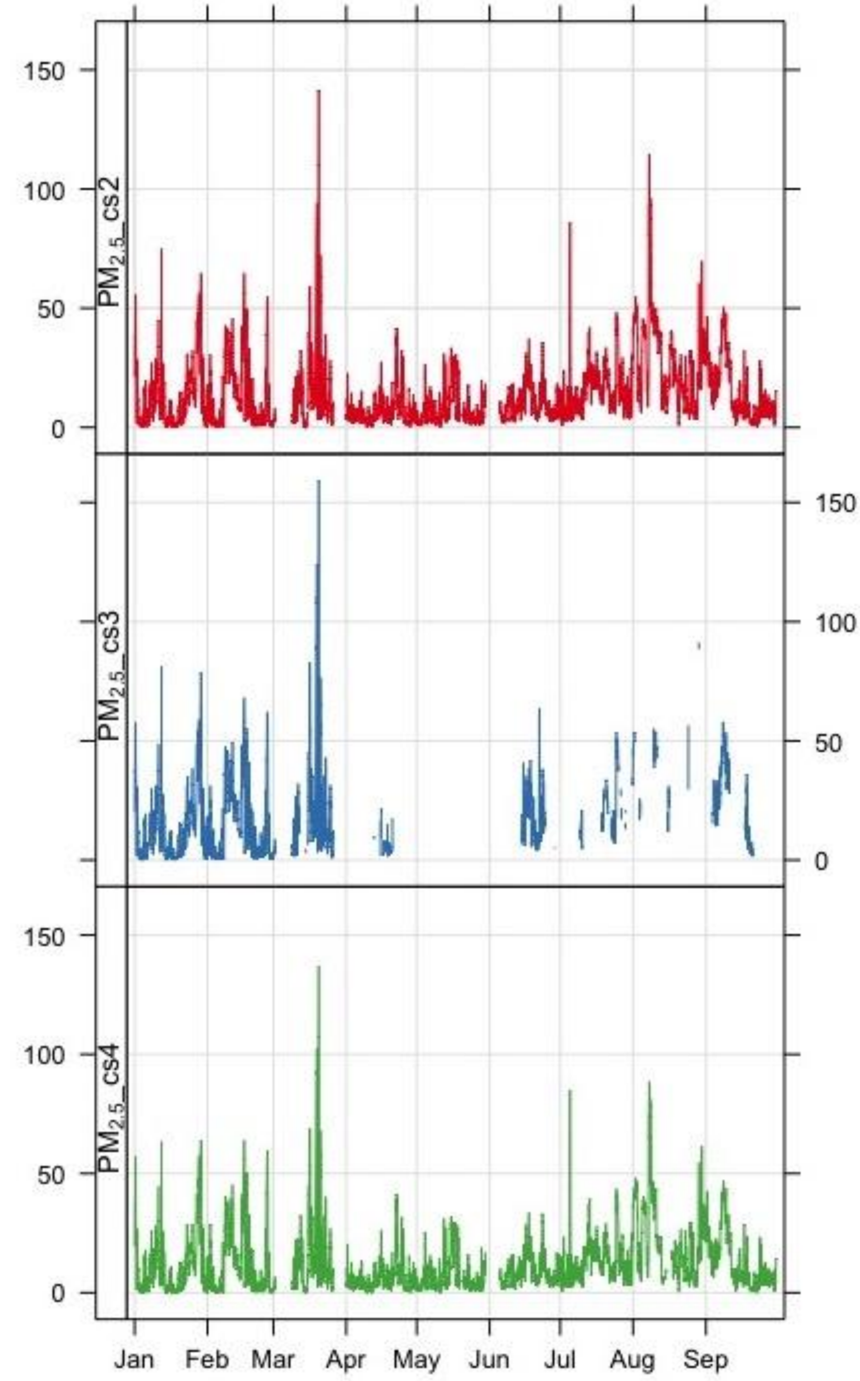

Figure S4: *Hourly averaged $PM_{2.5}$ time-series of the Love My Air sensors CS2, CS3, and CS4, co-located at the I25 Globeville reference site*

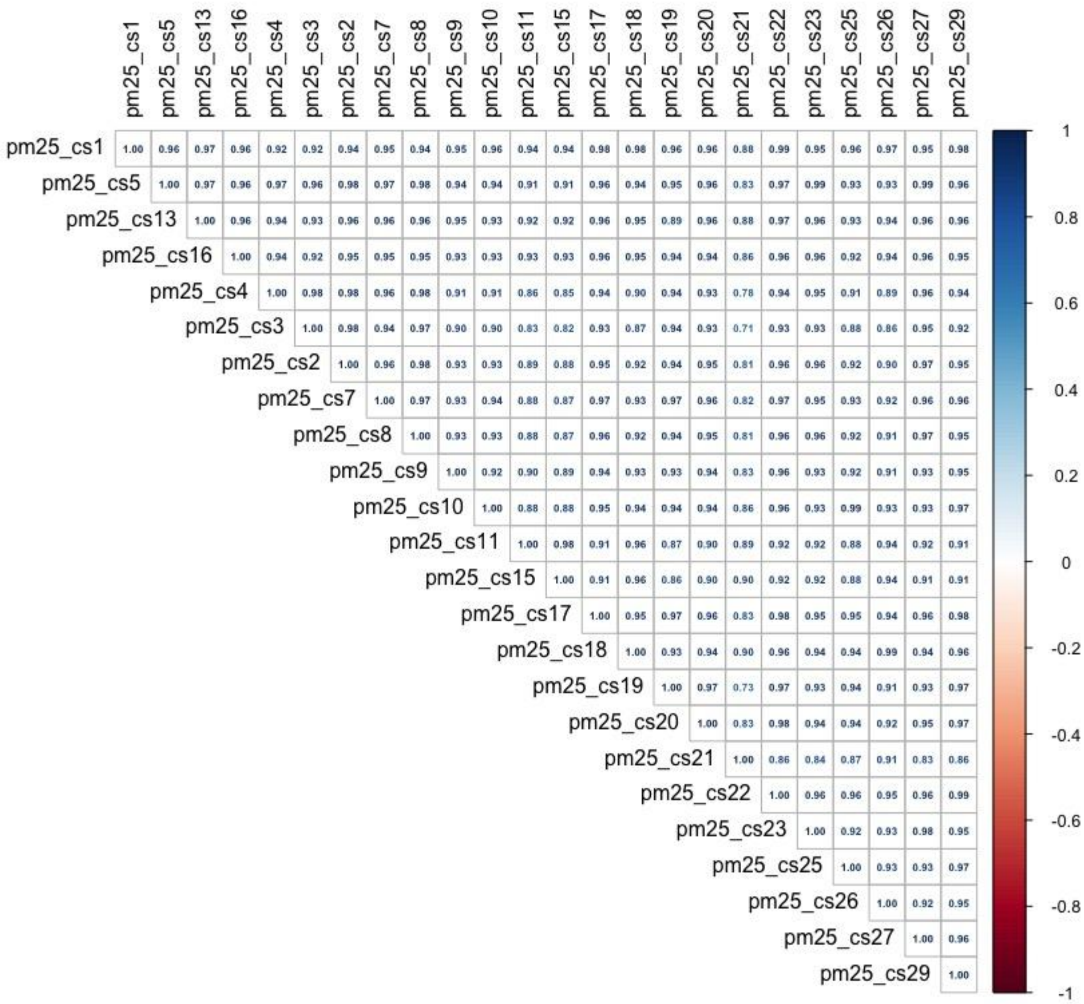

Figure S5*: Correlations between hourly averaged $PM_{2.5}$ measurements from each Love My Air sensor in the network*

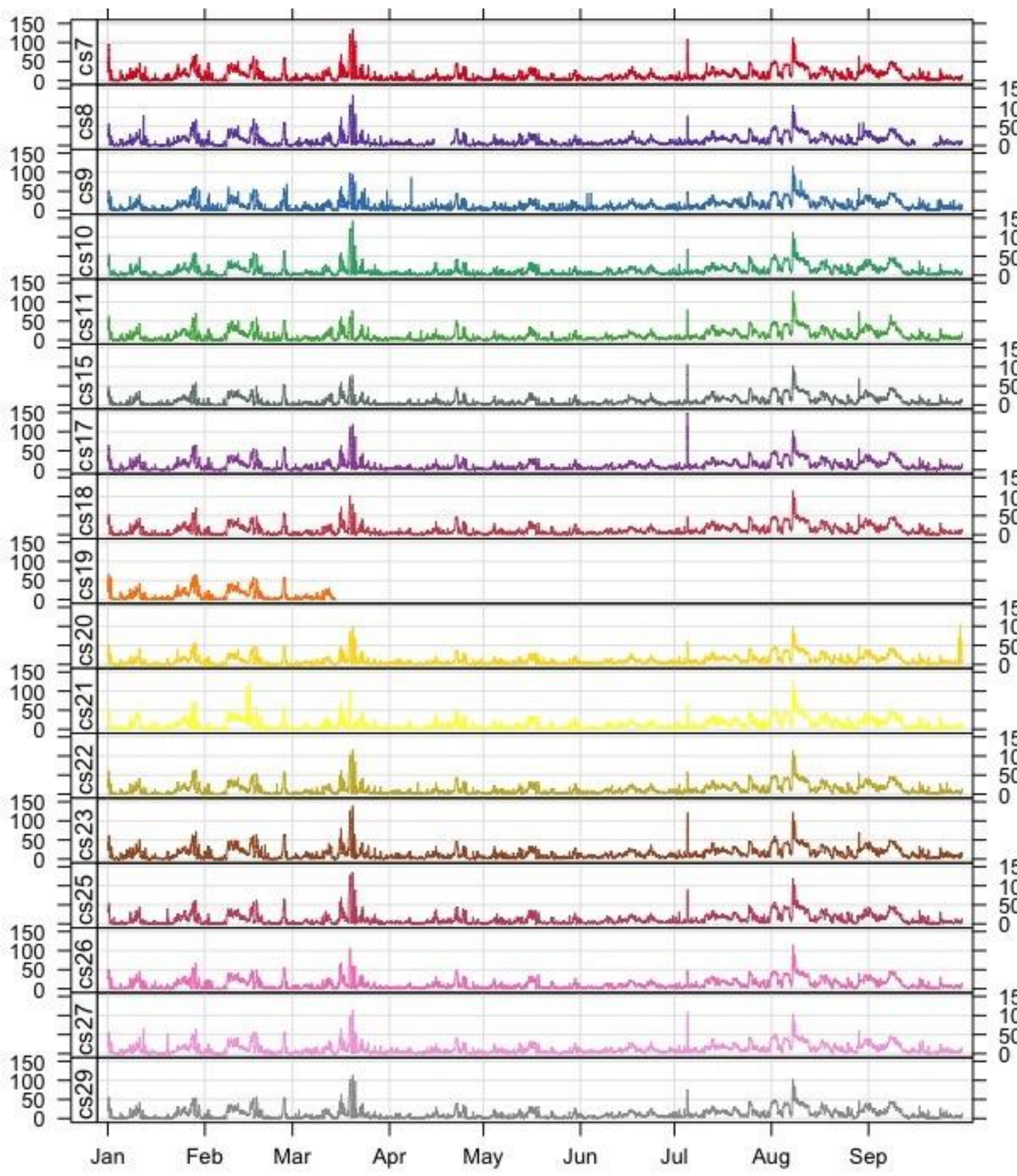

***Figure S6**: Uncorrected hourly averaged $PM_{2.5}$ time series of all Love My Air sensors not co-located with a reference monitor*

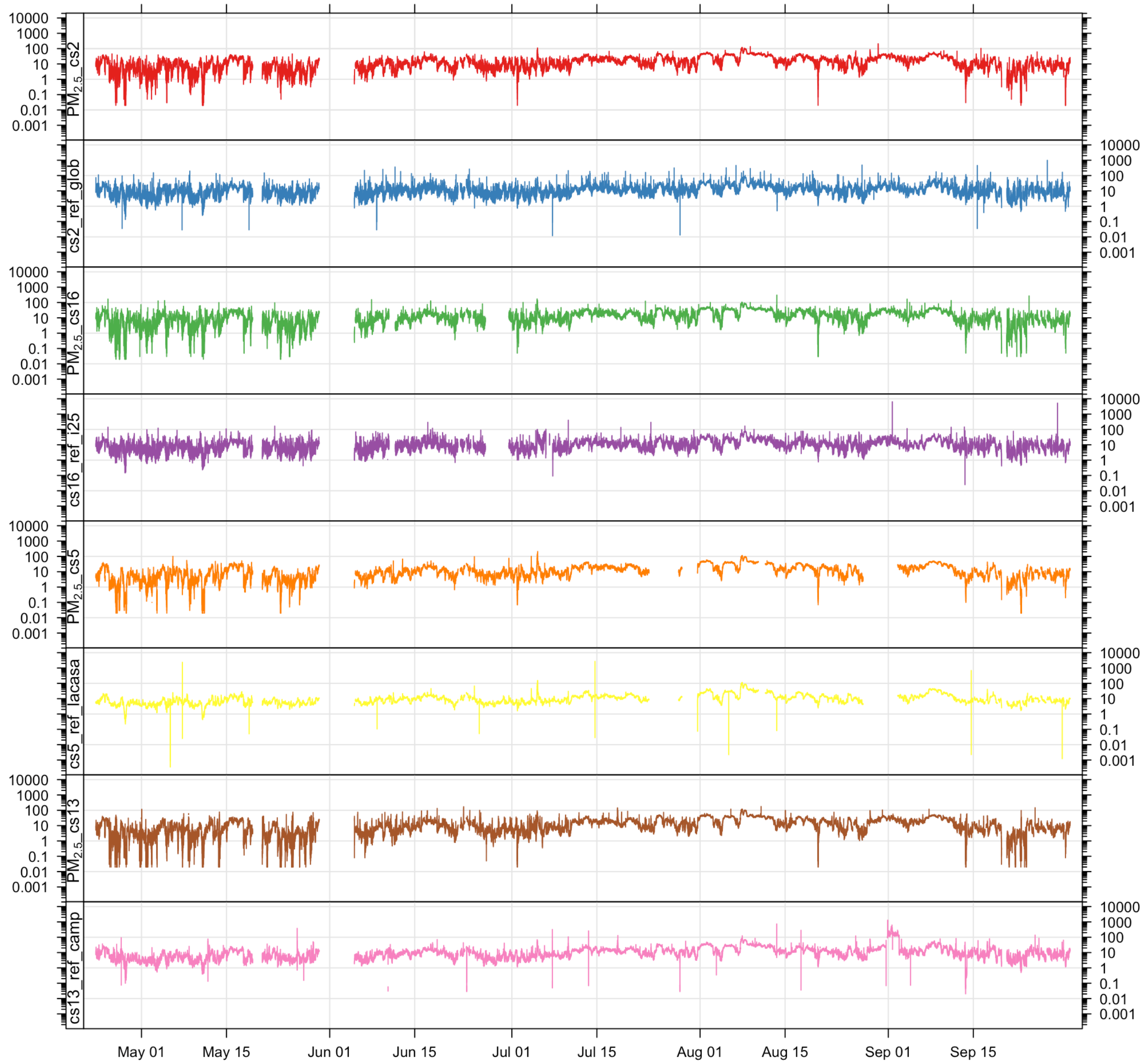

***Figure S7**: Uncorrected minute level $PM_{2.5}$ time series of Love My Air sensors co-located and minute level measurements from reference monitors at sites I25 Globeville, I25 Denver, La Casa and CAMP. The y-axis has been transformed to the log scale*

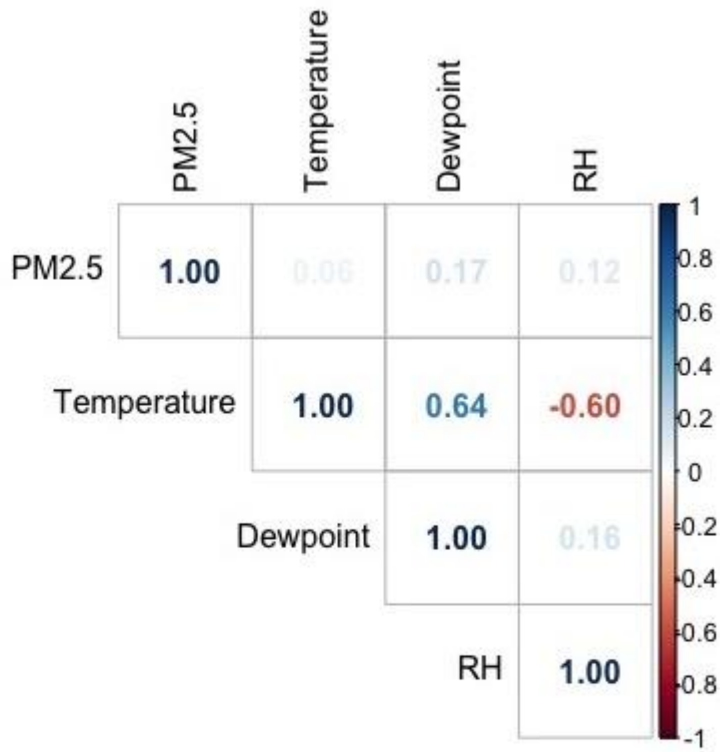

Figure S8: *Correlations between $PM_{2.5}$, temperature, humidity and dewpoint for co-located LCS*

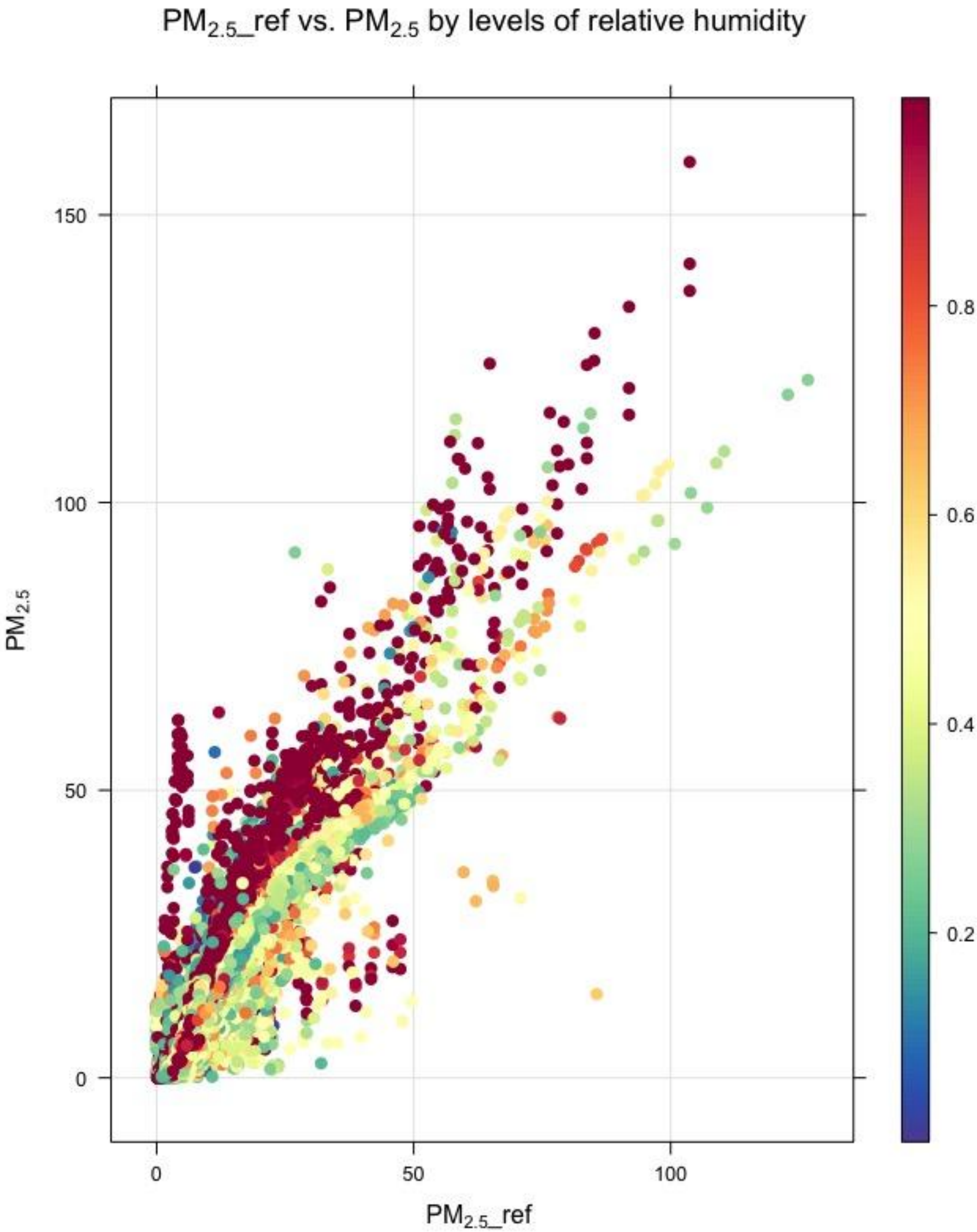

Figure S9: *Comparison of hourly averaged $PM_{2.5}$ concentrations from reference monitors with the corresponding $PM_{2.5}$ concentrations from the co-located Love My Air monitor by levels of RH (expressed as a fraction)*

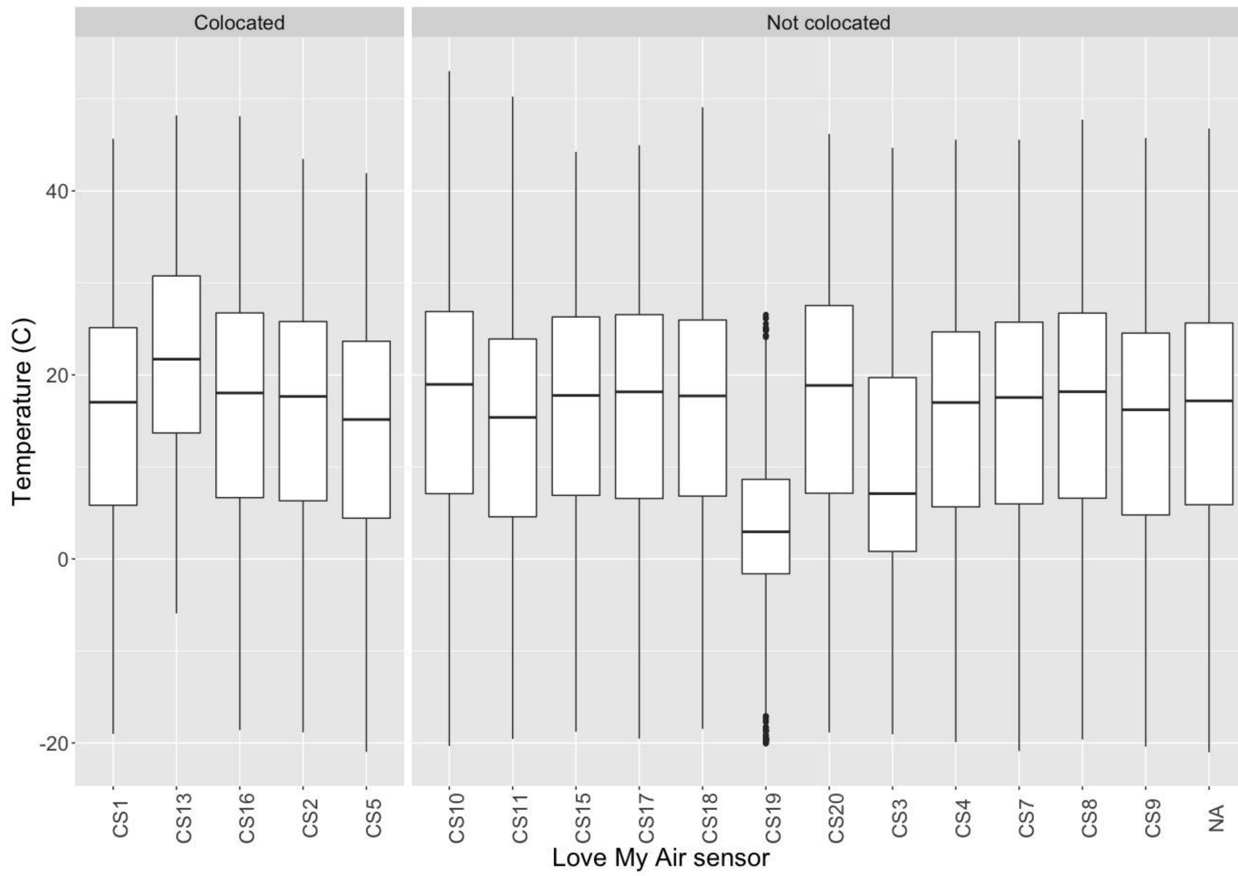

Figure S10: *Distribution of temperature recorded by each Love My Air sensor over the total course of measurements*

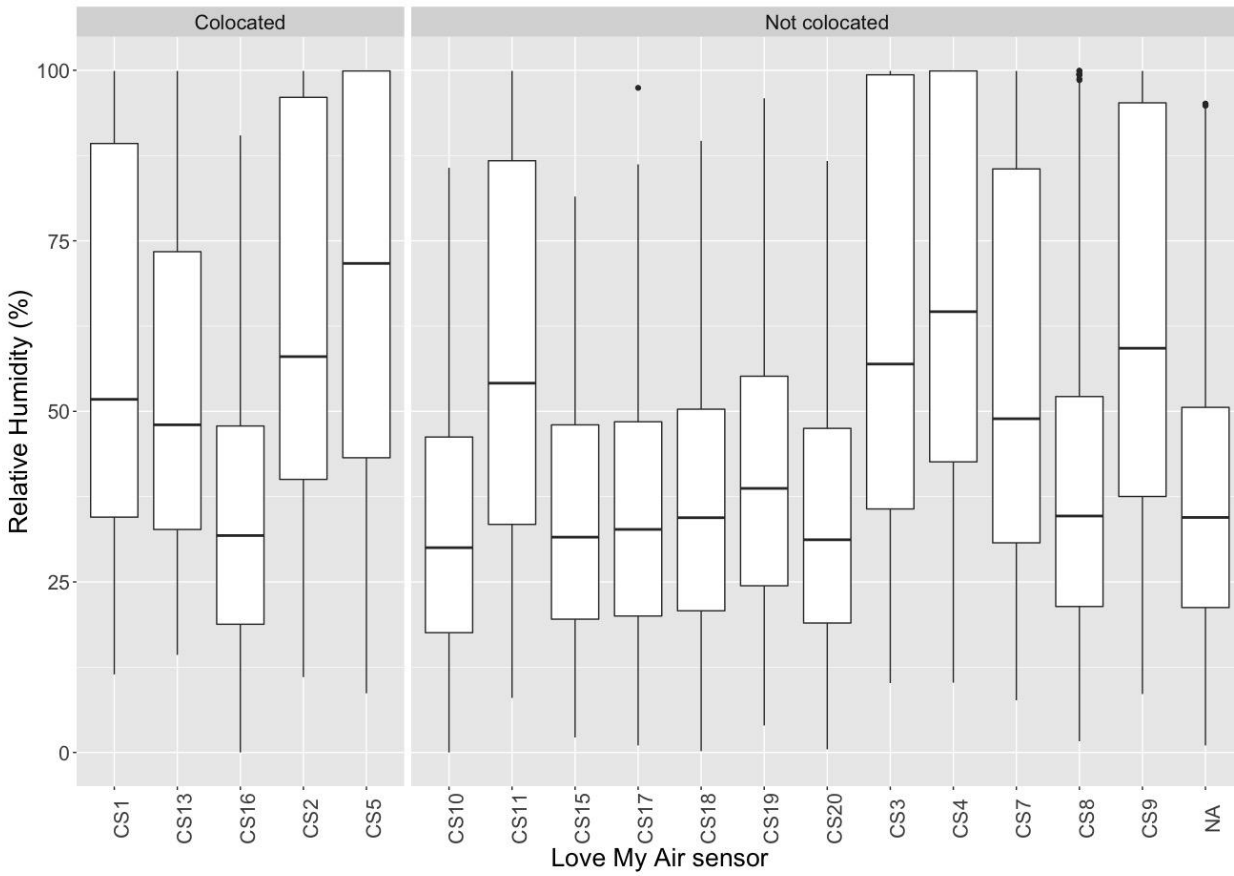

Figure S11: *Distribution of relative humidity recorded by each Love My Air sensor over the total course of measurements*

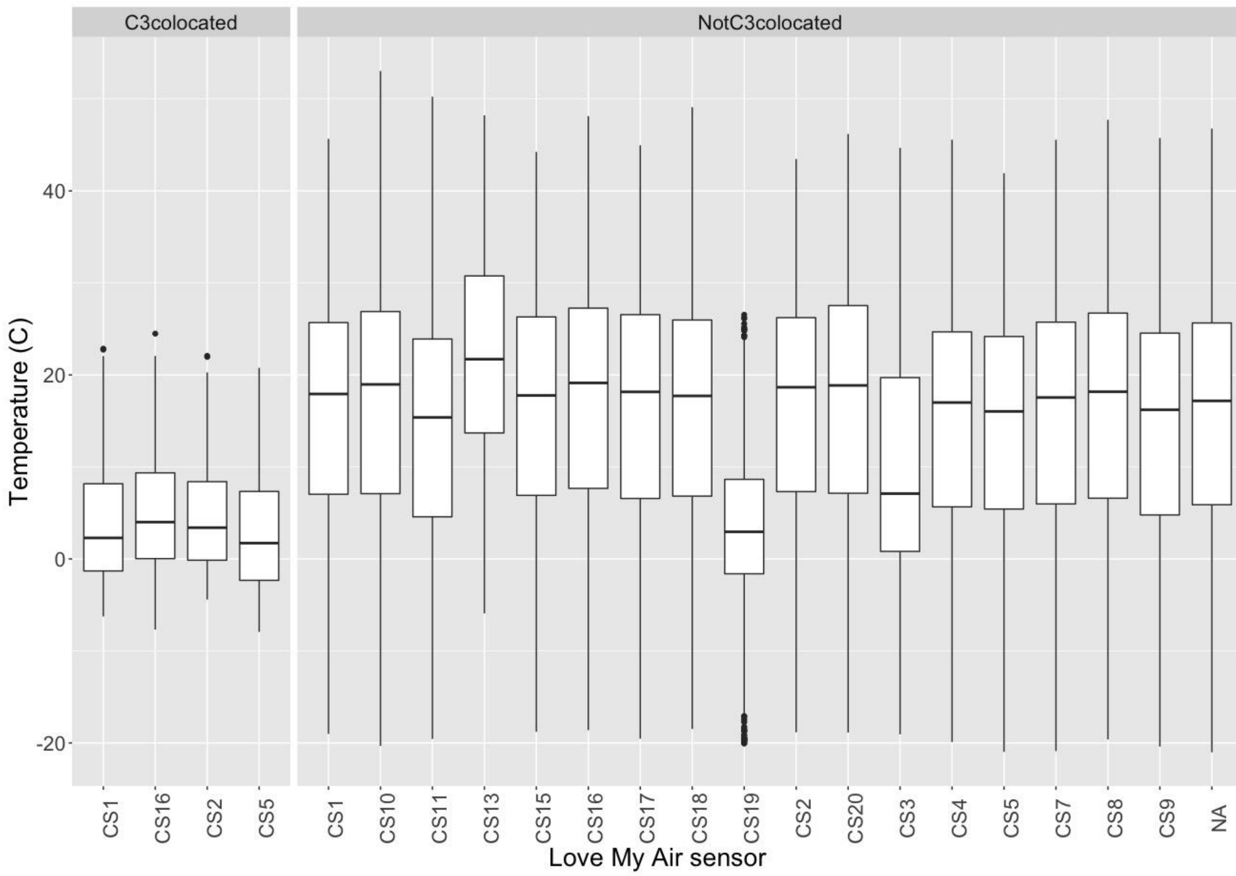

Figure S12*: Distribution of temperature recorded by each Love My Air sensor. The distribution of temperature recorded by co-located LCS used in the C3 correction (Jan 1 - Jan 14, 2021) is shown on the left. The distribution of temperature recorded by all LCS not used to construct the calibration models are displayed on the right*

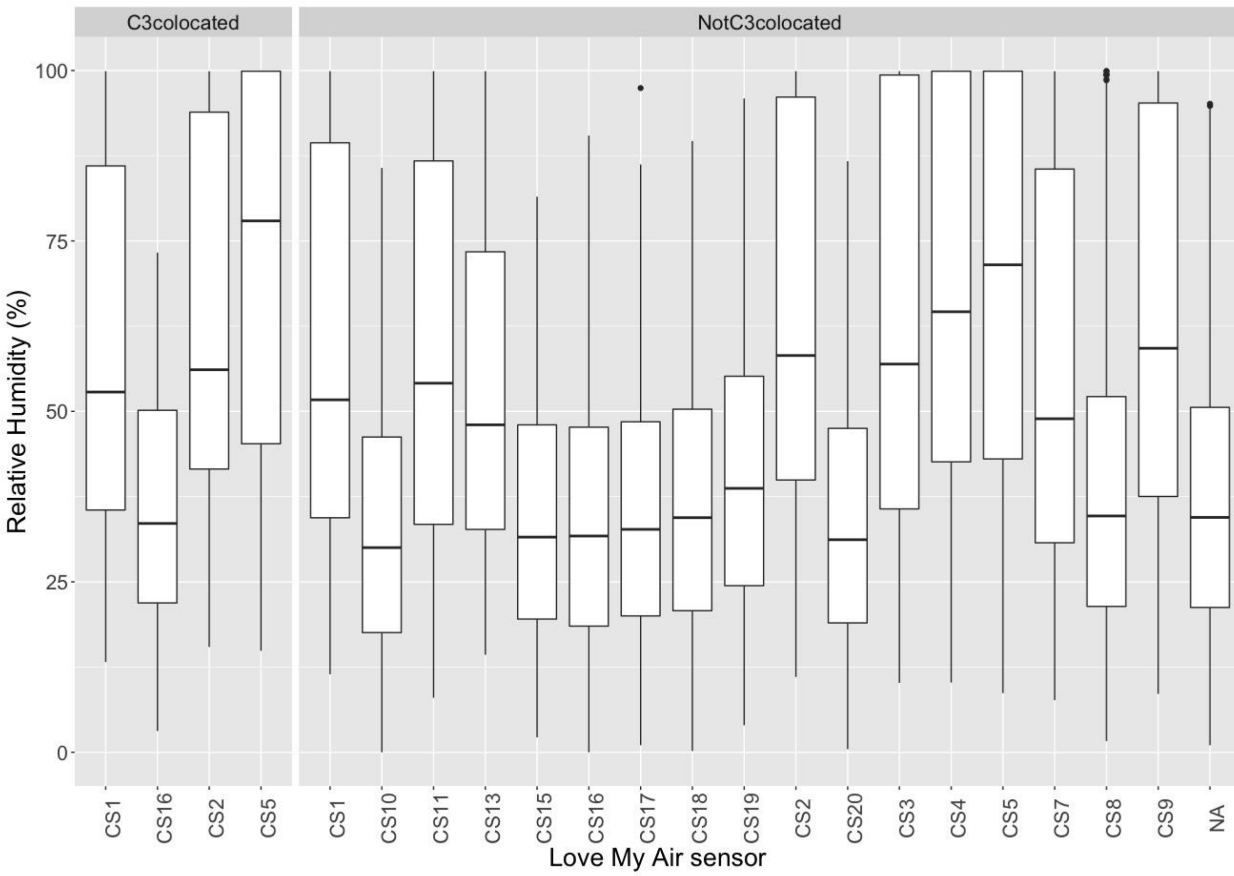

Figure S13*: Distribution of RH recorded by each Love My Air sensor. The distribution of RH recorded by co-located LCS used in the C3 correction (Jan 1 - Jan 14, 2021) is shown on the left. The distribution of tRH recorded by all LCS not used to construct the calibration models are displayed on the right*

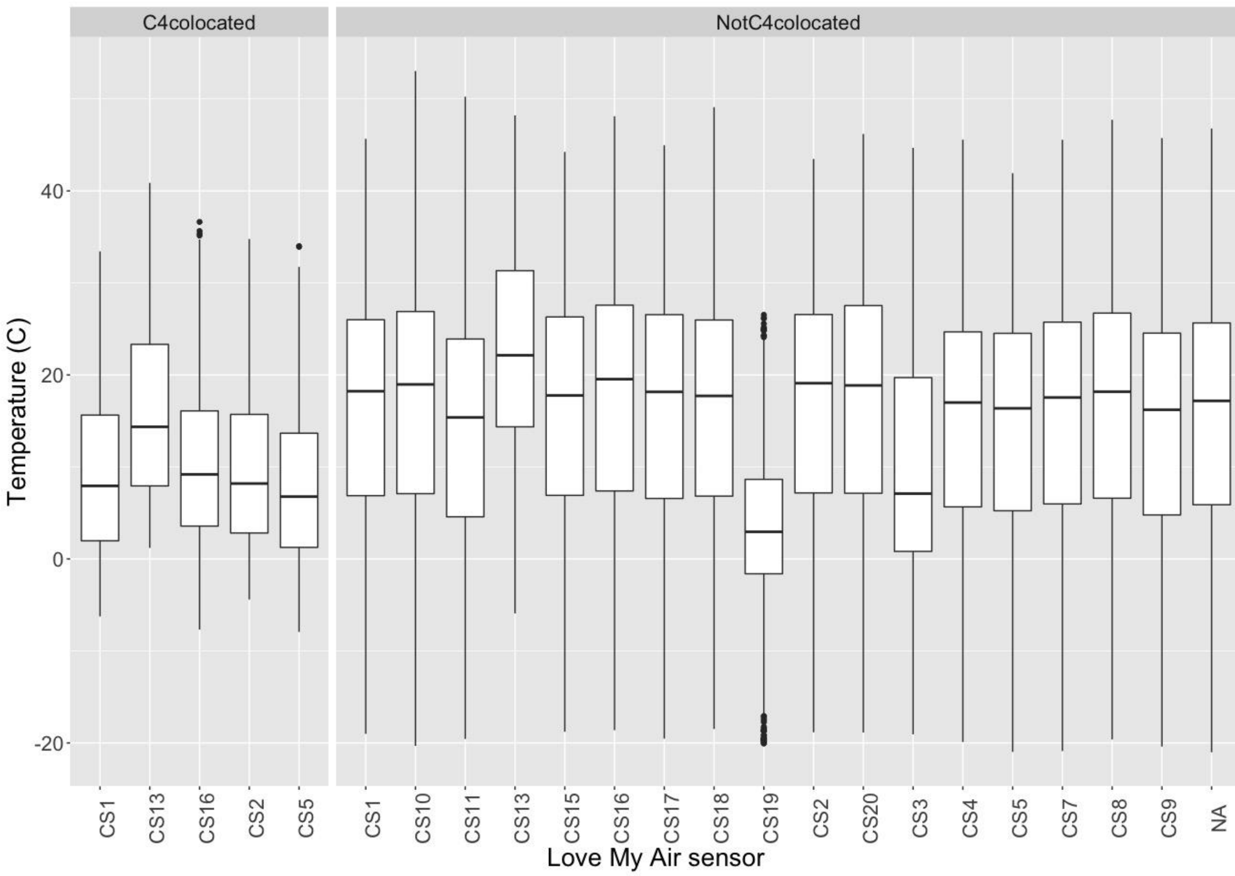

Figure S14: *Distribution of temperature recorded by each Love My Air sensor. The distribution of temperature recorded by co-located LCS used in the C4 correction (Jan 1 - Jan 14, 2021 and May 1 - May 14, 2021) is shown on the left. The distribution of temperature recorded by all LCS not used to construct the calibration models are displayed on the right*

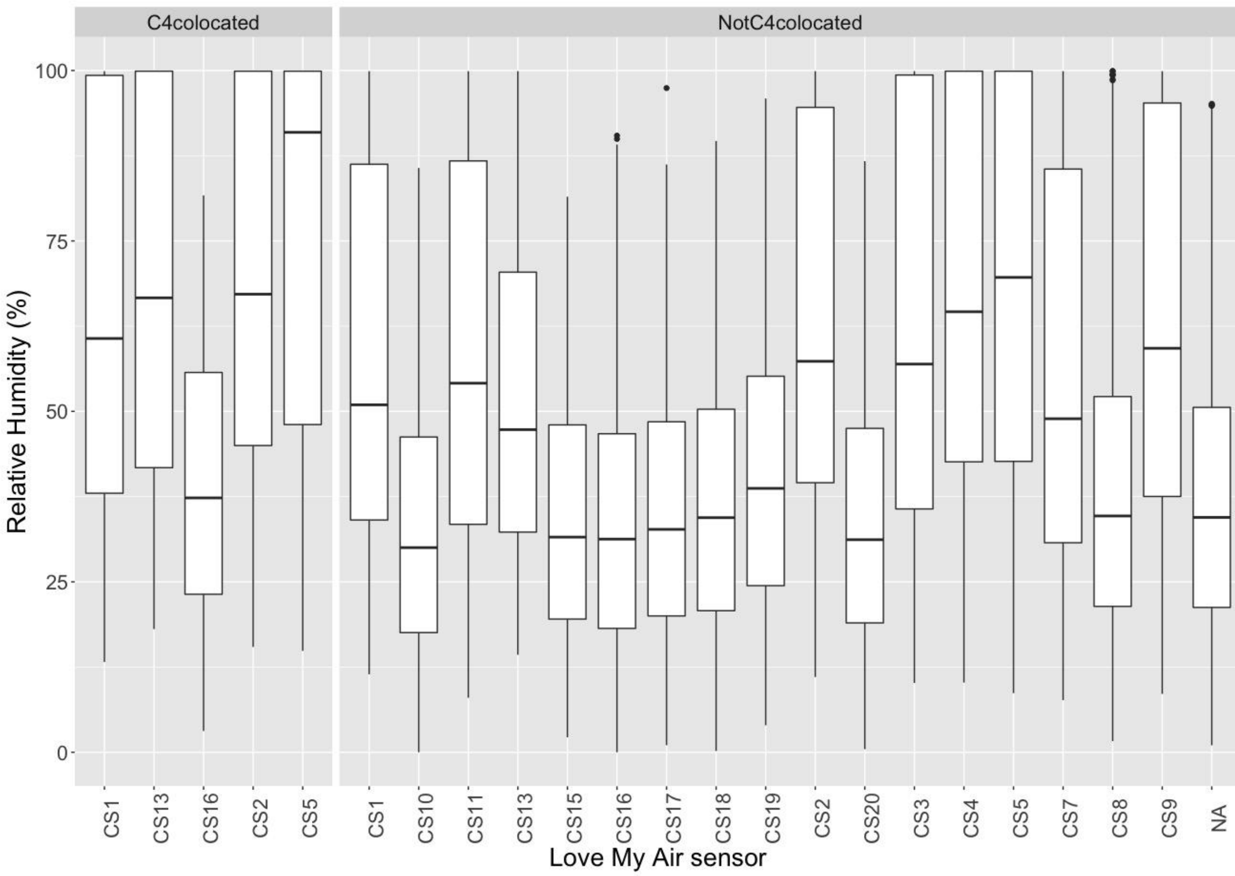

Figure S15*: Distribution of RH recorded by each Love My Air sensor. The distribution of RH recorded by co-located LCS used in the C4 correction (Jan 1 - Jan 14, 2021 and May 1- May 14, 2021) is shown on the left. The distribution of tRH recorded by all LCS not used to construct the calibration models are displayed on the right*

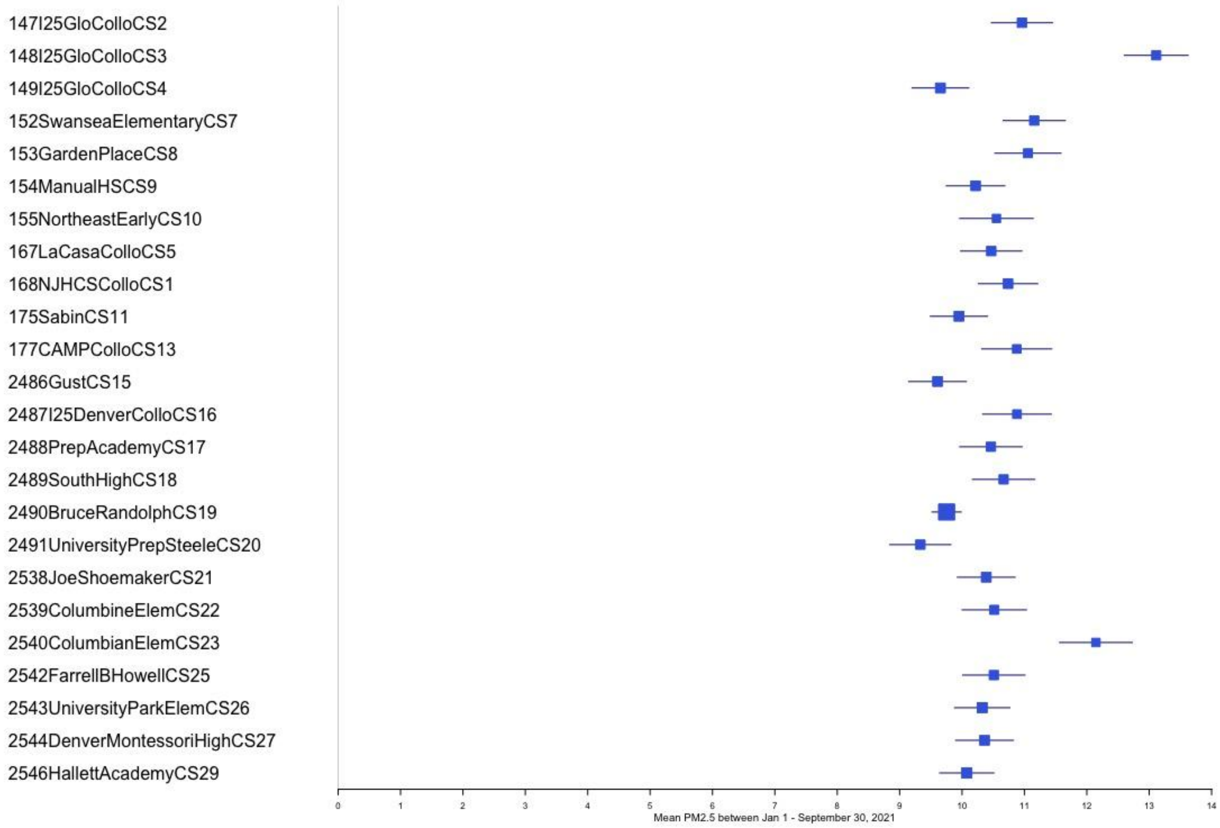

Figure S16: *Mean (95% CI) $PM_{2.5}$ levels across the different models and corrections at each Love My Air site for the duration of the experiment (Jan 1 - September 30, 2021)*

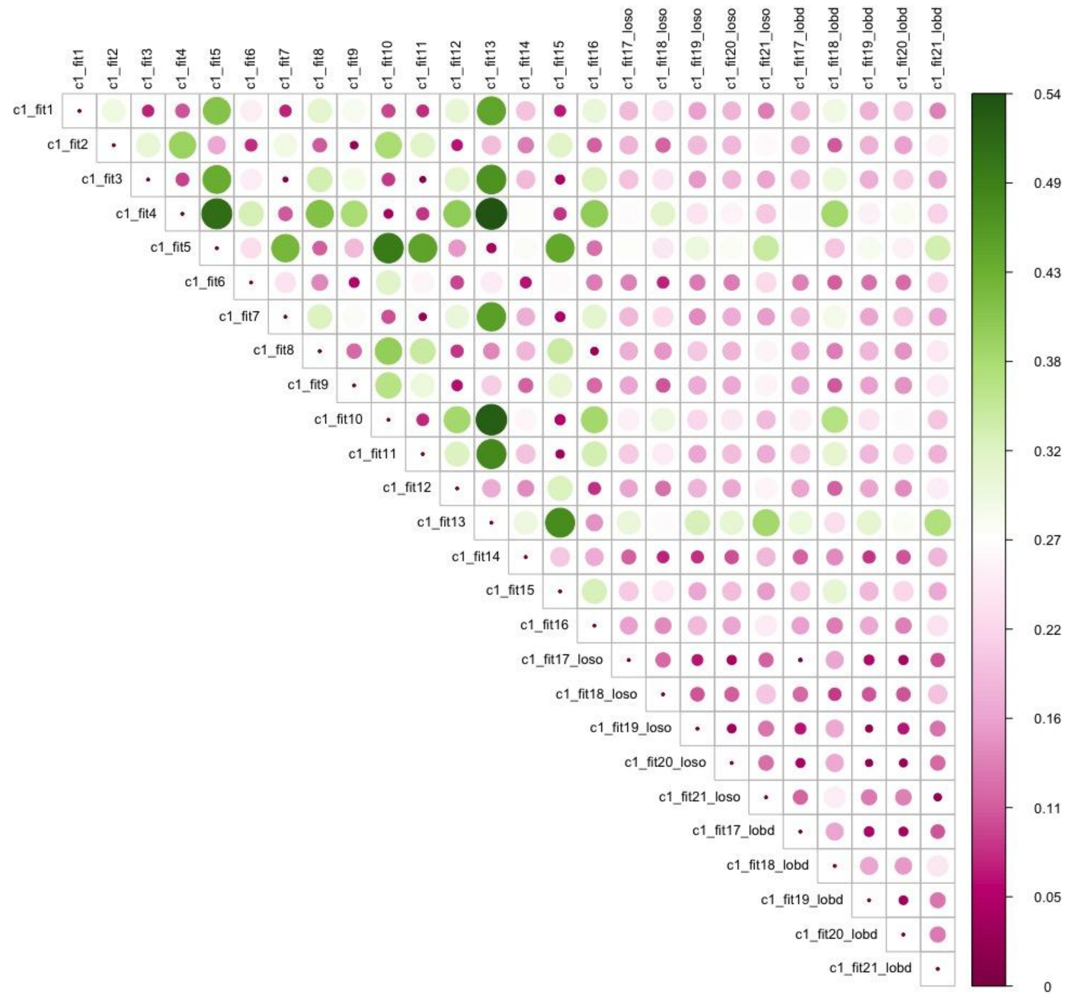

Figure S17*: Spatial RMSD* (μg/m^3) *from applying each of the 89 models using correction C1 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

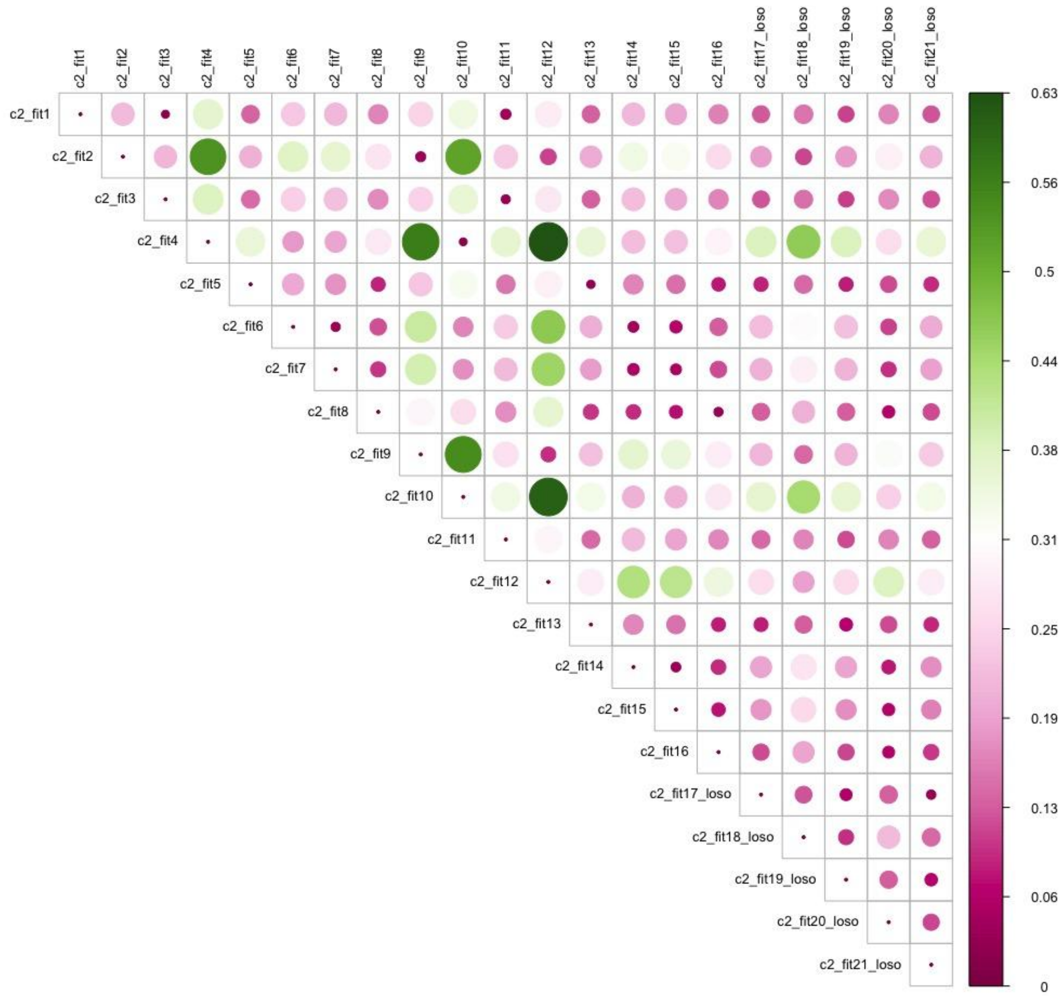

Figure S18*: Spatial RMSD* (µg/m^3) *from applying each of the 89 models using correction C2 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

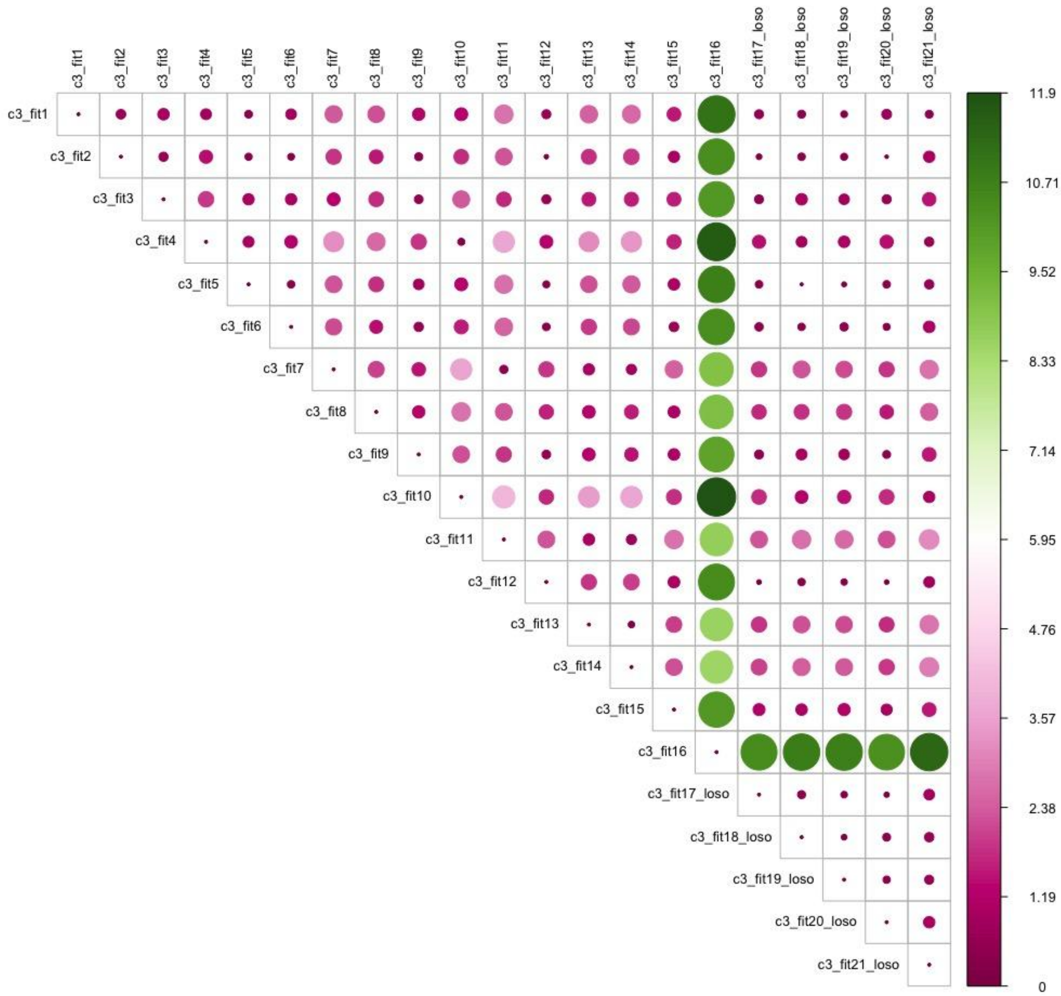

***Figure S19**: Spatial RMSD* (μg/m^3) *from applying each of the 89 models using correction C3 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

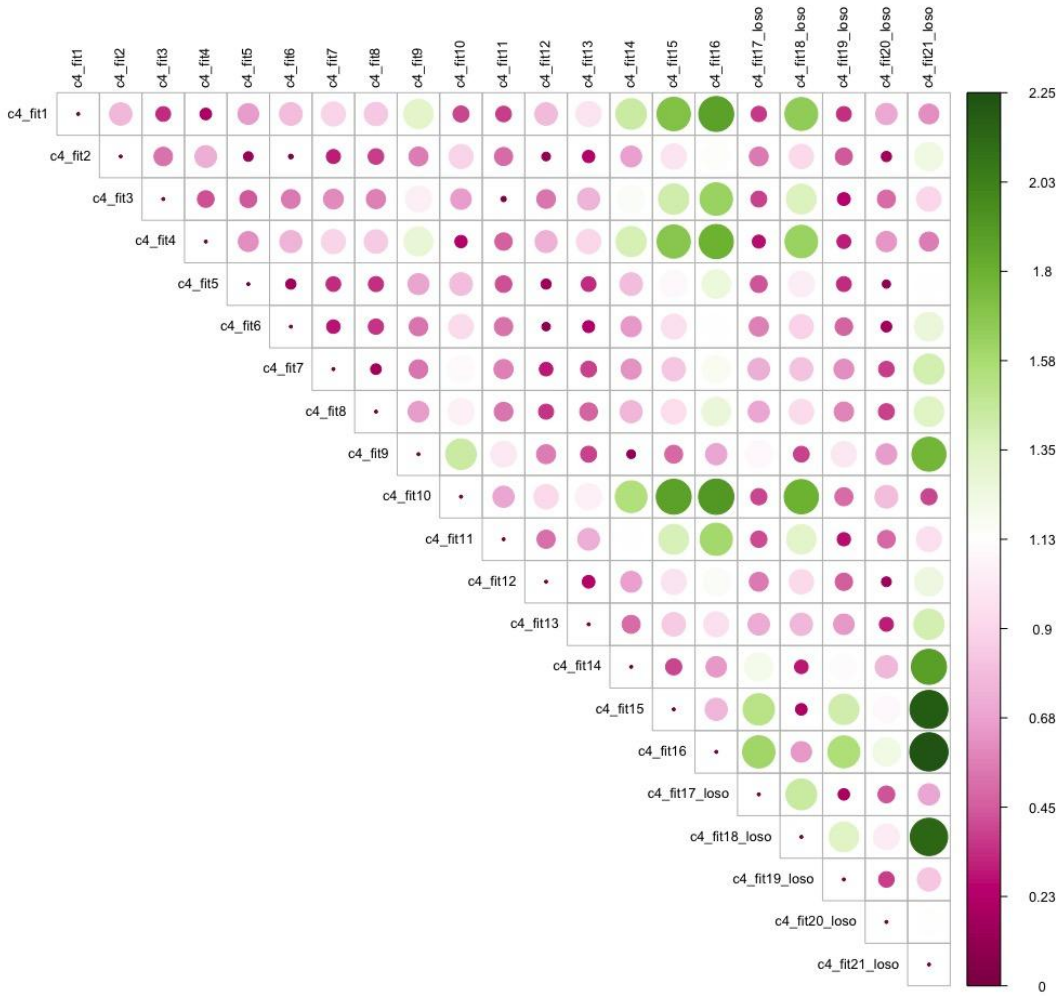

Figure S20*: Spatial RMSD* (μg/m^3) *from applying each of the 89 models using correction C4 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

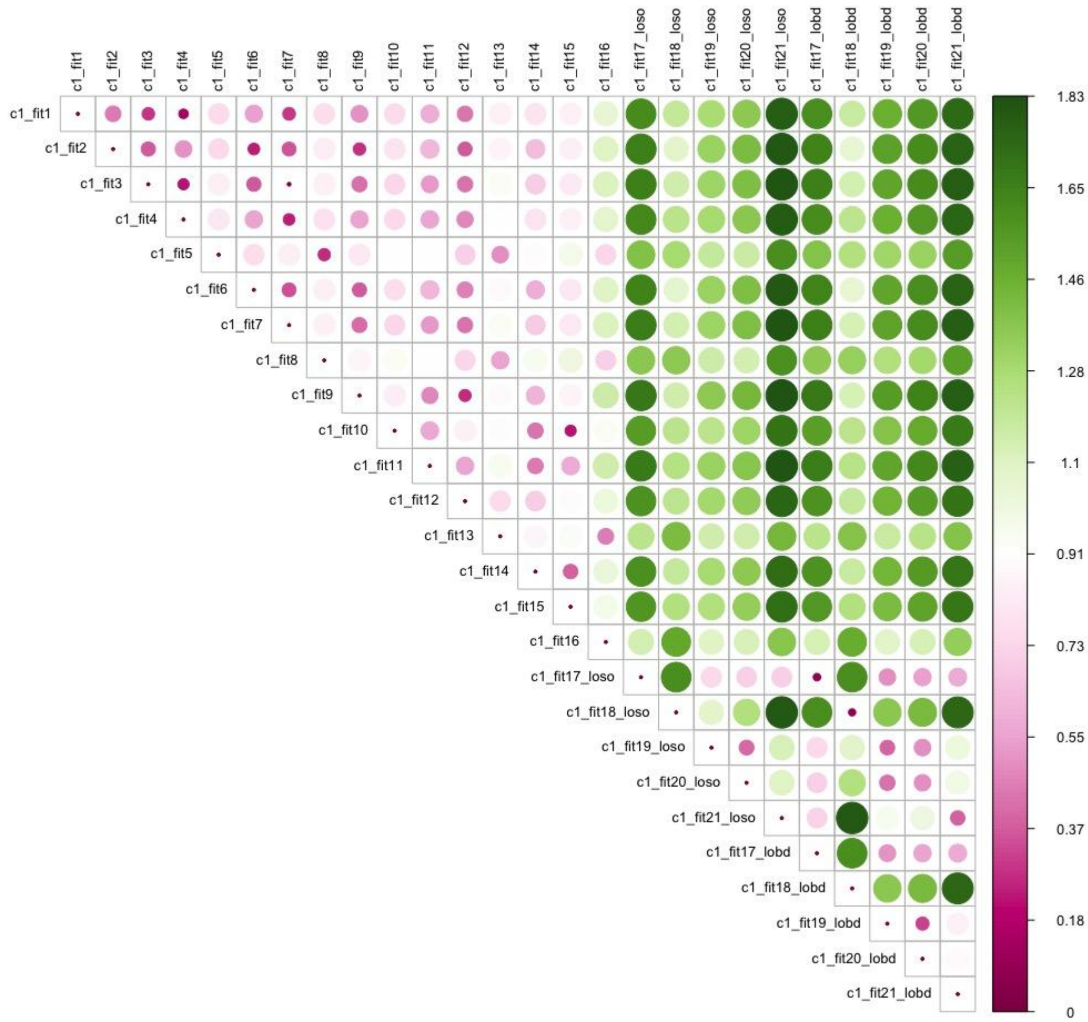

Figure S21*: Temporal RMSD* (μg/m^3) *from applying each of the 89 models using correction C1 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

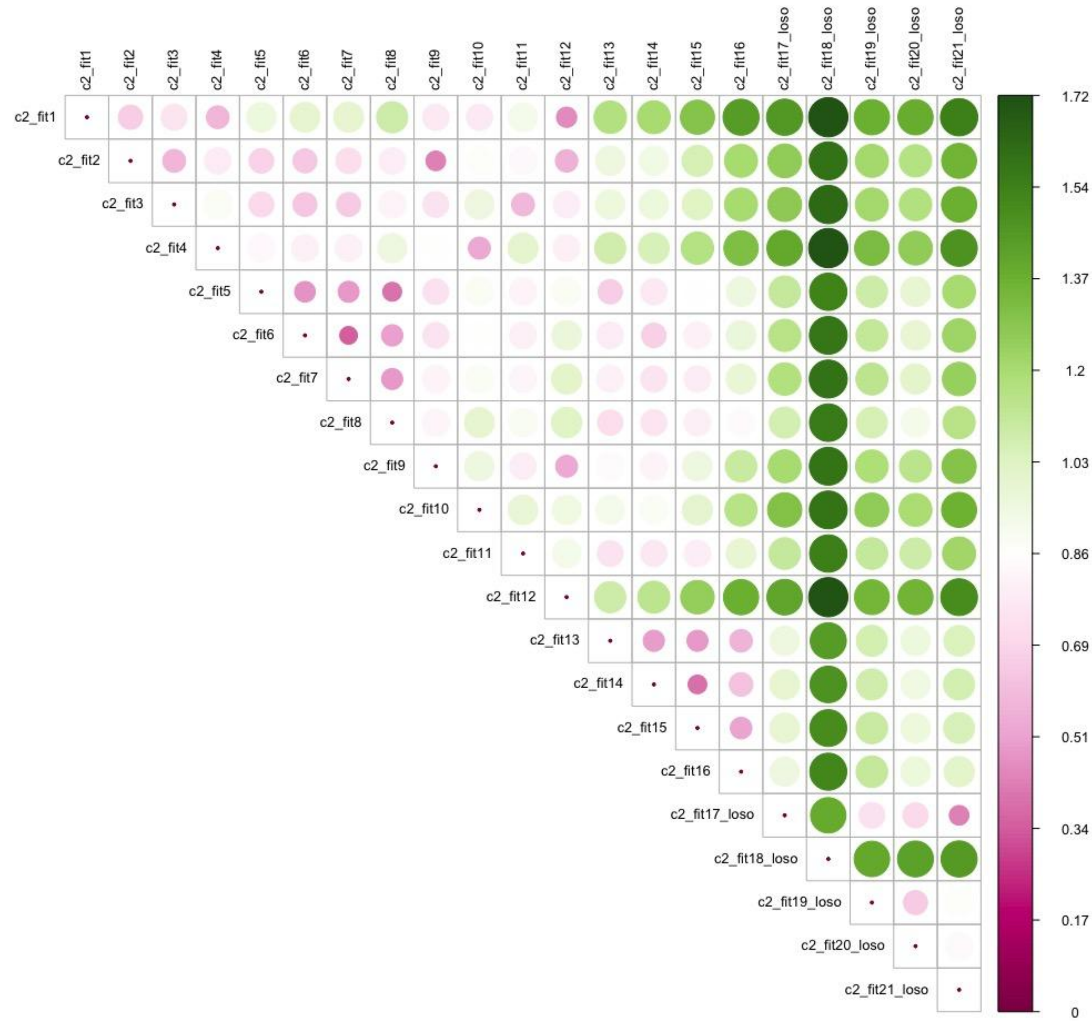

Figure S22*: Temporal RMSD* (μg/m^3) *from applying each of the 89 models using correction C2 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

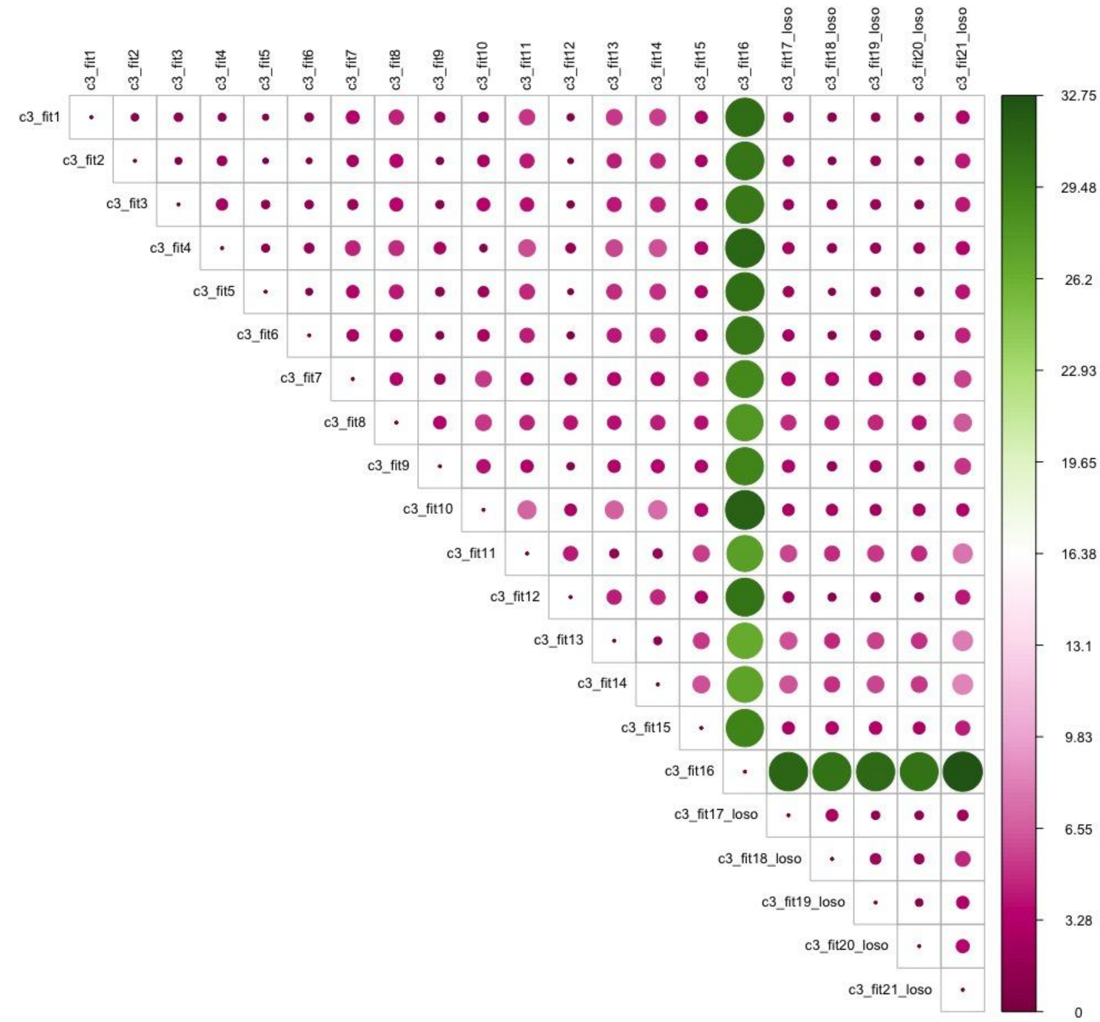

Figure S23*: Temporal RMSD* (μg/m^3) *from applying each of the 89 models using correction C3 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

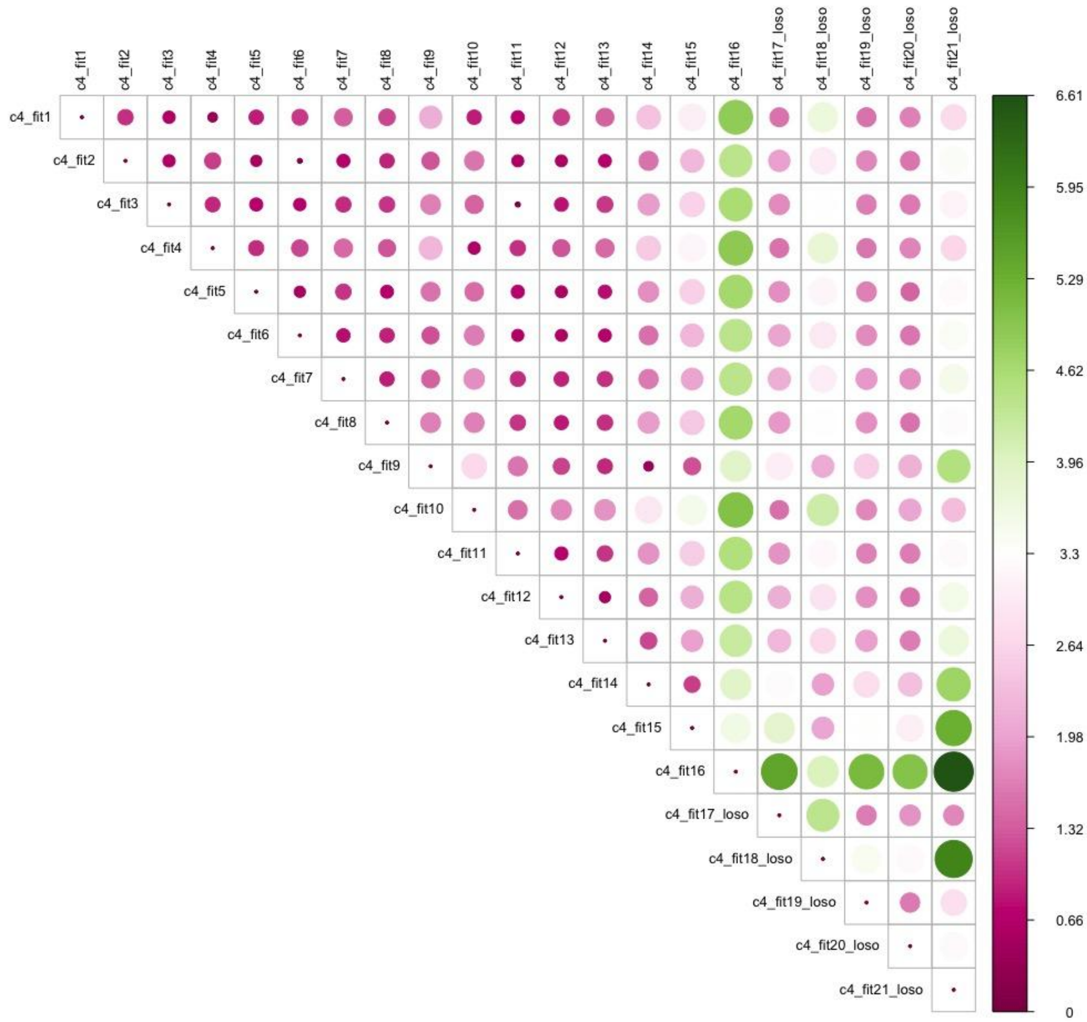

Figure S24*: Temporal RMSD* (μg/m^3) *from applying each of the 89 models using correction C4 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

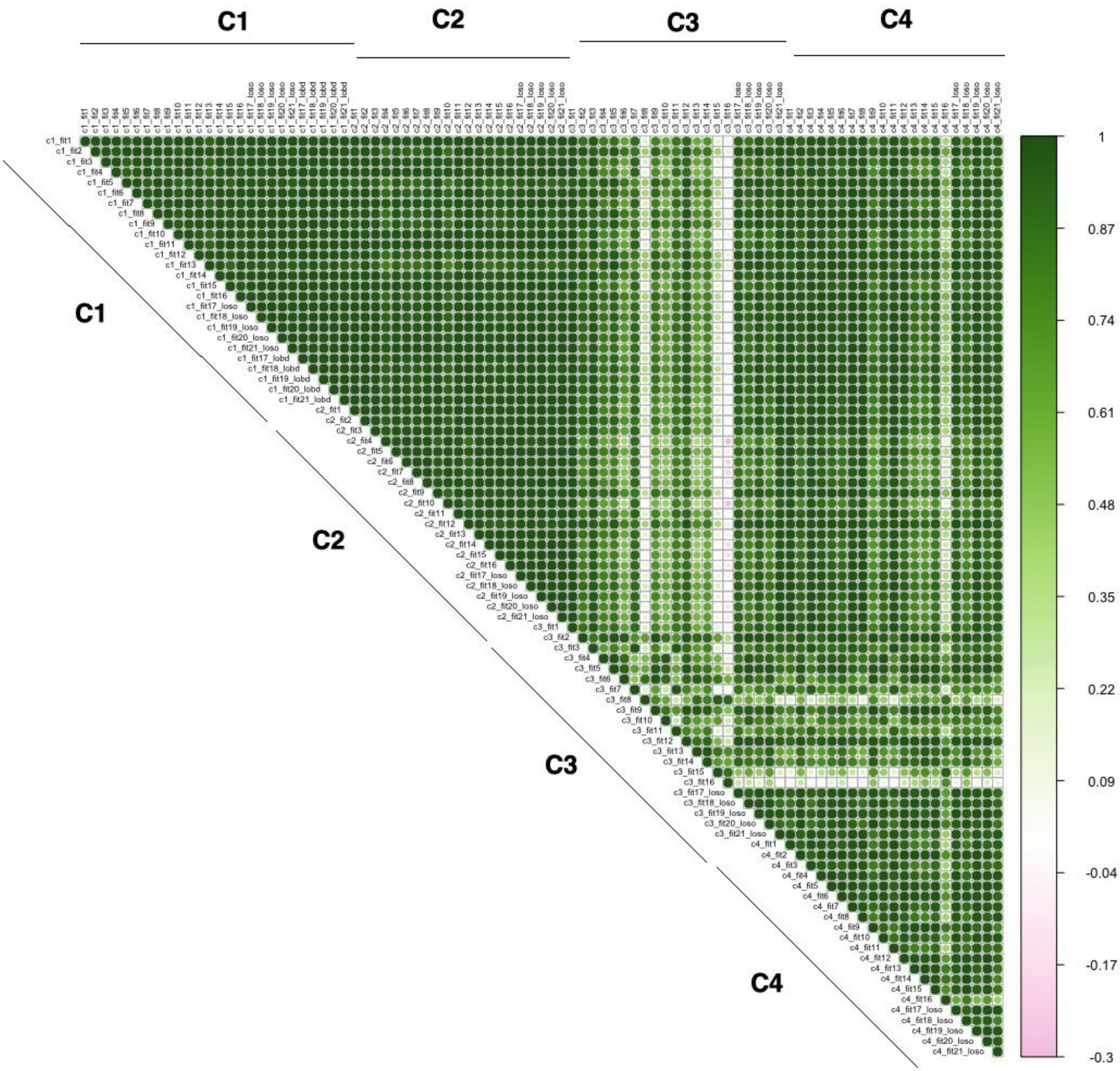

Figure S25: *Spatial Correlations from applying each of the 89 models using corrections C1-C4 to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*

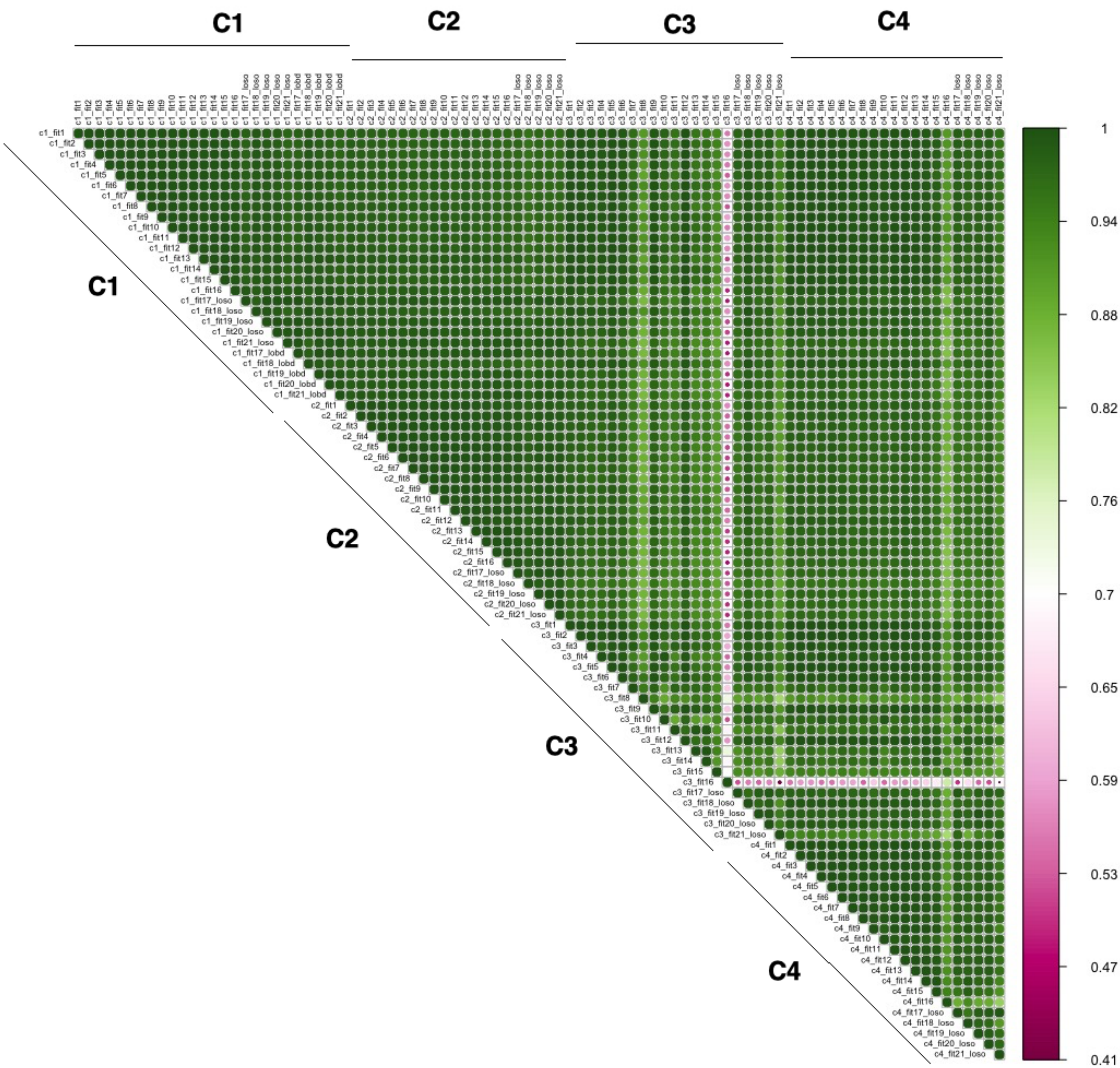
C1
C2
C3
C4
c1_fit1
c1_fit2
c1_fit3
c1_fit4
c1_fit5
c1_fit6
c1_fit7
c1_fit8
c1_fit9
c1_fit10
c1_fit11
c1_fit12
c1_fit13
c1_fit14
c1_fit15
c1_fit16
c1_fit17_loso
c1_fit18_loso
c1_fit19_loso
c1_fit20_loso
c1_fit21_loso
c1_fit17_lobd
c1_fit18_lobd
c1_fit19_lobd
c1_fit20_lobd
c1_fit21_lobd
c2_fit1
c2_fit2
c2_fit3
c2_fit4
c2_fit5
c2_fit6
c2_fit7
c2_fit8
c2_fit9
c2_fit10
c2_fit11
c2_fit12
c2_fit13
c2_fit14
c2_fit15
c2_fit16
c2_fit17_loso
c2_fit18_loso
c2_fit19_loso
c2_fit20_loso
c2_fit21_loso
c3_fit1
c3_fit2
c3_fit3
c3_fit4
c3_fit5
c3_fit6
c3_fit7
c3_fit8
c3_fit9
c3_fit10
c3_fit11
c3_fit12
c3_fit13
c3_fit14
c3_fit15
c3_fit16
c3_fit17_loso
c3_fit18_loso
c3_fit19_loso
c3_fit20_loso
c3_fit21_loso
c4_fit1
c4_fit2
c4_fit3
c4_fit4
c4_fit5
c4_fit6
c4_fit7
c4_fit8
c4_fit9
c4_fit10
c4_fit11
c4_fit12
c4_fit13
c4_fit14
c4_fit15
c4_fit16
c4_fit17_loso
c4_fit18_loso
c4_fit19_loso
c4_fit20_loso
c4_fit21_loso
1
0.94
0.88
0.82
0.76
0.7
0.65
0.59
0.53
0.47
0.41

Figure S26: *Temporal Correlations from applying each of the 89 models using corrections C1-C4 approaches to all monitoring sites in the Love My Air network calculated using the method described in section 2.3.4*