Supplement of

Multiyear chemical composition of the fine aerosol fraction in Athens, Greece, with emphasis on winter-time residential heating

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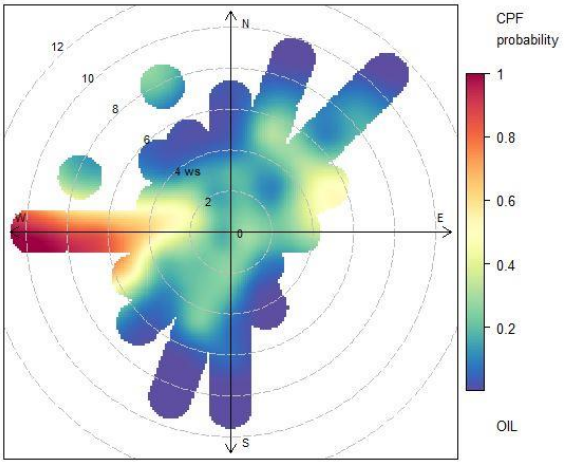
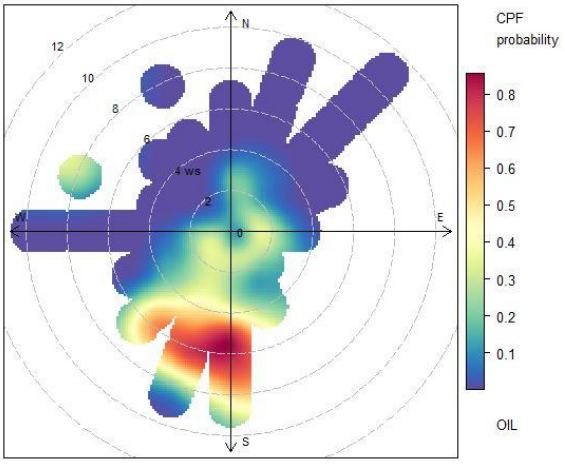
a)


CPF
probability
1
0.8
0.6
0.4
0.2
OIL
N
E
S
W
12
10
8
6
4 ws
2
0

b)


CPF
probability
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0.7
0.6
0.5
0.4
0.3
0.2
0.1
OIL
N
E
S
W
12
10
8
6
4 ws
2
0

c)

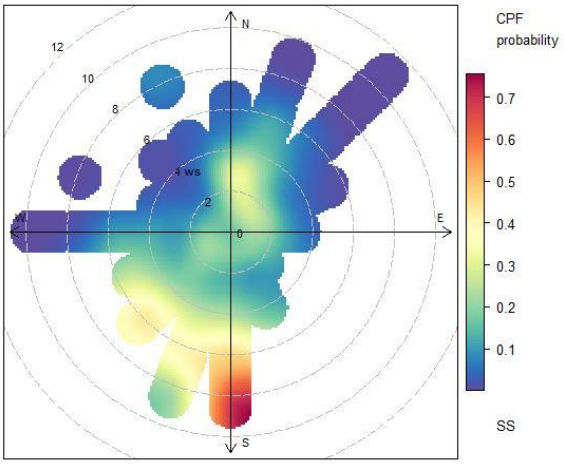
CPF
probability
0.7
0.6
0.5
0.4
0.3
0.2
0.1
SS
N
E
S
W
12
10
8
6
4 ws
2
0

Figure S1: Bivariate (wind speed and speed) polar plots that PMF-estimated contributions will: a) be in the 50th -75th percentile range for the oil combustion factor b) exceed the 75th percentile for the oil combustion factor c) be in the 50-90th percentile for the sea salt factor. Calm winds (wind speed < 0.5 m s^{-1}) were excluded.

PMF parameter	
N species	19
N samples	146
Down-weighted species	Cd, Ca^{2+}
Excluded species	Mg^{2+}, As
Added uncertainty	5%
Base Solution	
N factors	6
Q_{ROBUST} / Q_{EXP}	3.47
Q_{ROBUST} / Q_{EXP} (-1 factor)	3.06
Q_{ROBUST} / Q_{EXP} (+1 factor)	3.02
r^2, Slope	0.85, 0.94
BS-DISP results	
Number of resamples	100
% of BS factors assigned	99% (OIL,BB), 100%(remaining 4)
DISP %dQ	-0.50
DISP % of factor swaps	0
BS-DISP Displaced species	K, Cu, SO_4^{2-}, Ni, Fe, Cl^-
BS-DISP %dQ	-0.84
BS-DISP % of factor swaps	2
BS-DISP error interval ratios for factor identifying species	K : 0.81 Cu : 1.07 SO_4^{2-}: 0.40 Ni: 0.71 Fe: 0.61 Cl^-: 0.20

Table S1: Summary of PMF settings and error estimation (EE) diagnostics