



**Figure S1.** Spatial distribution of PM<sub>2.5</sub> concentration in Changchun

**Table S1.** Urban forest classification

Type of urban forest	Abbreviation	Tree-habitats
Roadside Forest	RF	Trees along railroads, highways, boulevards, roads, and streets.
Landscape and Relaxation Forest	LF	Trees in the public parks, forest parks, historic sites, and scenic areas.
Affiliated Forest	AF	Trees next to buildings in school yards, campuses, hospitals, commercial and business districts, industrial areas and residential areas.
Ecological and Public Welfare Forest	EF	Trees next to river banks and farmlands.
Production and Management Forest	PF	Trees in the nurseries, orchards, plantations, and woodlands.

**Table S2.** Correlations between environmental factors and PM<sub>2.5</sub> concentration for LUR model. Note: \* Correlation is significant at 0.05 level; \*\* Correlation is significant at 0.01 level.

Buffer zone radius	Factors	Independent variables	<i>r</i>	<i>p</i>
300m	Traffic factor	Total road density	0.462	0.053
		First-level Road density	0.454	0.057
		Second-level Road density	0.455	0.056
	Land use factor	Ecological land area	-0.142	0.738
		Industrial land area	0.284	0.495
	Population factor	Residencial area	0.418*	0.033
	Meteorological factor	Wind speed	-0.308	0.312
		Temperature	-0.382	0.057
		Precipitation	-0.492*	0.035
		Relative humidity	-0.283	0.312
	Vegetation factor	NDVI	-0.616**	0.006
	600m		Total road density	0.554*
First-level Road density			0.523*	0.038
Second-level Road density			0.506*	0.044
Land use factor		Ecological land area	-0.107	0.769
		Industrial land area	0.379	0.184
Population factor		Residencial area	0.385*	0.042
Meteorological factor		Wind speed	-0.332	0.306
		Temperature	-0.397	0.056
		Precipitation	-0.373*	0.041
		Relative humidity	-0.286	0.279
Vegetation factor		NDVI	-0.484**	0.026
900m			Total road density	-0.013
	First-level Road density		0.068	0.874
	Second-level Road density		0.043	0.889
	Land use factor	Ecological land area	-0.144	0.714
		Industrial land area	0.462	0.373
	Population factor	Residencial area	0.106	0.147
	Meteorological factor	Wind speed	-0.357	0.300
		Temperature	-0.265	0.164
		Precipitation	-0.321	0.052
		Relative humidity	-0.355	0.214
	Vegetation factor	NDVI	-0.416*	0.030
	1200m		Total road density	-0.220
First-level Road density			-0.080	0.850
Second-level Road density			-0.130	0.749
Land use factor		Ecological land area	-0.168	0.649
		Industrial land area	0.294	0.422

1500m	Population factor	Residencial area	0.223	0.298
	Meteorological factor	Wind speed	-0.102	0.678
		Temperature	-0.221	0.274
		Precipitation	-0.226	0.070
		Relative humidity	-0.333	0.254
	Vegetation factor	NDVI	-0.374*	0.044
		Total road density	-0.353	0.392
		First-level Road density	-0.194	0.645
		Second-level Road density	-0.104	0.758
	Land use factor	Ecological land area	-0.184	0.572
		Industrial land area	0.290	0.478
	Population factor	Residencial area	0.473	0.548
	Meteorological factor	Wind speed	-0.362	0.404
		Temperature	-0.475	0.327
		Precipitation	0.121	0.335
		Relative humidity	-0.417	0.134
	Vegetation factor	NDVI	-0.321*	0.049

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