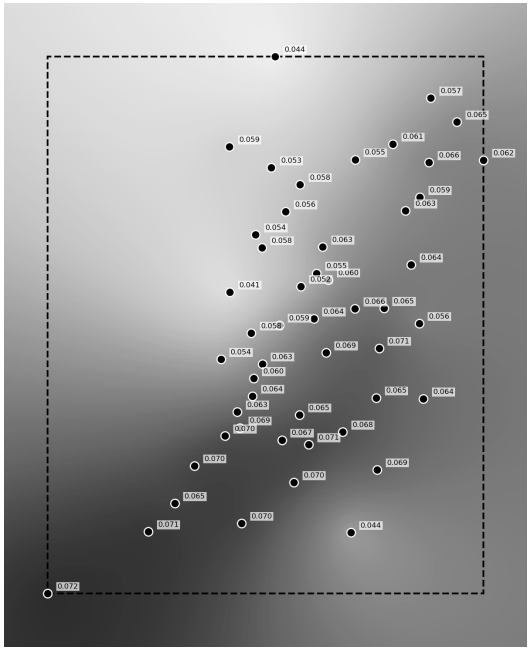
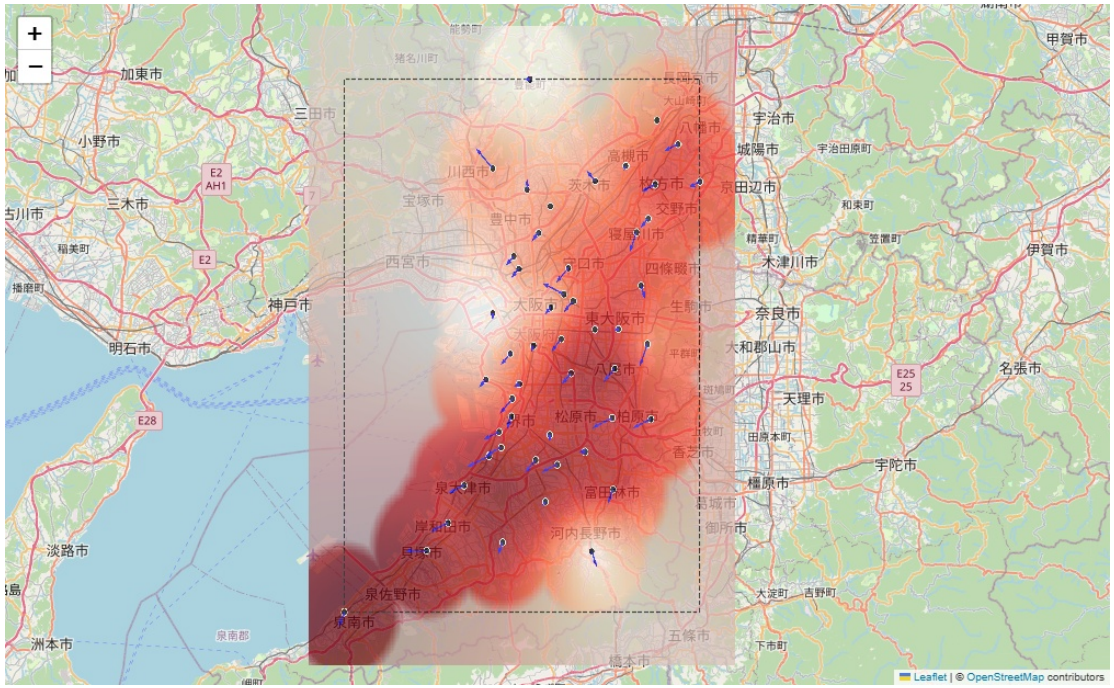
Simple Kriging Interpolation - 2025/5/12 19H

$$\hat{z}(x_0) = \sum_{i=1}^{n} \lambda_i z(x_i)$$

$\hat{z}(x_0)$: estimated value at location x_0
$z(x_i)$: known value at location x_i
λ_i: Kriging weight for $z(x_i)$, based on spatial correlation
$\sum \lambda_i = 1$: weights sum to 1 (unbiasedness condition)
Weights depend on variogram model (e.g., exponential, spherical...)





Model	Transform	RMSE	MAE	R^2
linear	none	0.00618	0.00438	0.260
linear	log	0.00628	0.00449	0.234
linear	sqrt	0.00623	0.00443	0.248
gaussian	none	0.00629	0.00470	0.233
gaussian	log	0.00632	0.00477	0.225
gaussian	sqrt	0.00630	0.00473	0.230
exponential	none	0.00623	0.00451	0.248
exponential	log	0.00624	0.00459	0.244
exponential	sqrt	0.00623	0.00455	0.247
spherical	none	0.00626	0.00461	0.241
spherical	log	0.00627	0.00469	0.237
spherical	sqrt	0.00626	0.00464	0.239