

Simple Kriging Interpolation - 大阪府 - 2025/5/12 19H

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

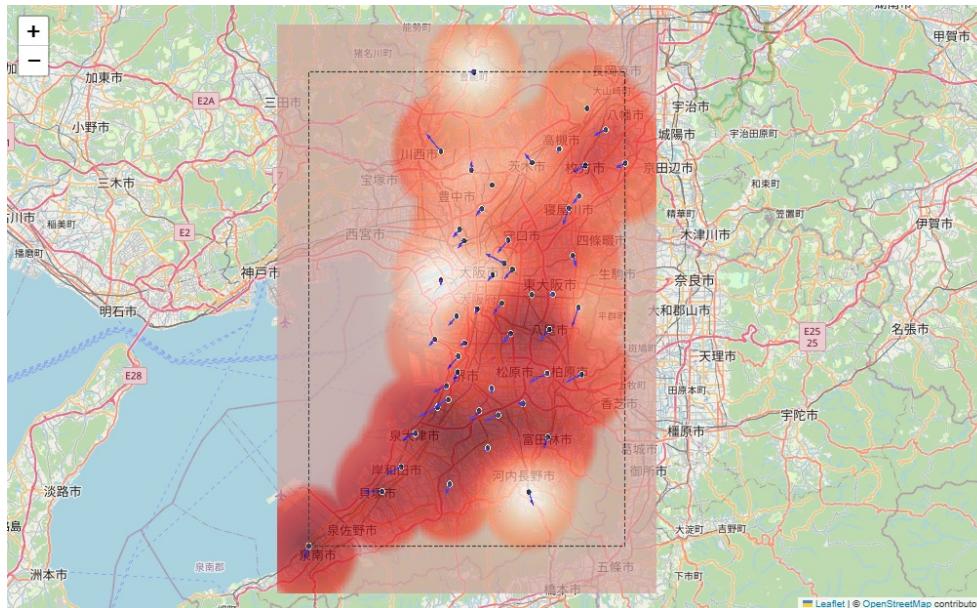
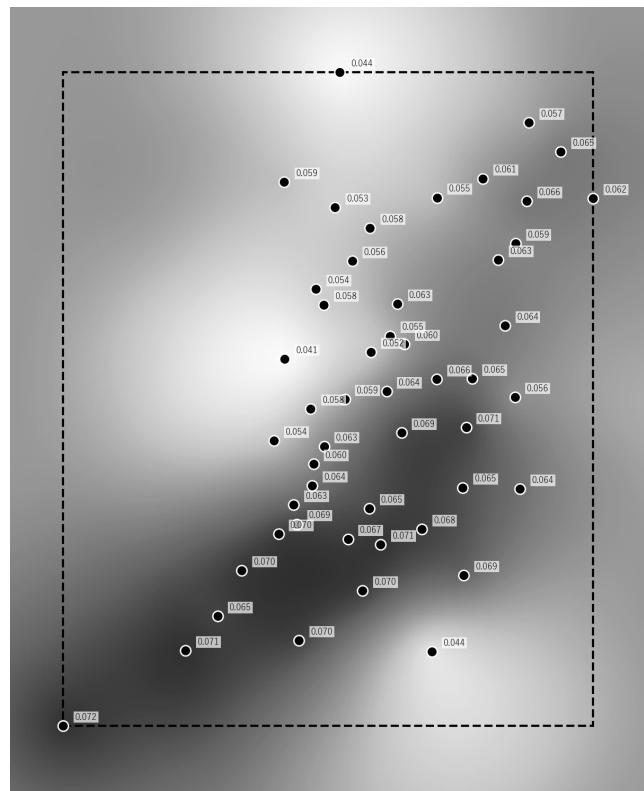
$\hat{z}(x_0)$: estimated value at location x_0

$z(x_i)$: 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...)



Variogram	Transform	RMSE	MAE	R ²
linear	none	0.00615	0.00436	0.266
linear	log	0.00626	0.00447	0.240
linear	sqrt	0.00620	0.00441	0.254
gaussian	none	0.00614	0.00456	0.269
gaussian	log	0.00617	0.00463	0.261
gaussian	sqrt	0.00615	0.00460	0.266
exponential	none	0.00617	0.00449	0.263
exponential	log	0.00618	0.00456	0.259
exponential	sqrt	0.00617	0.00453	0.262
spherical	none	0.00611	0.00448	0.277
spherical	log	0.00612	0.00455	0.274
spherical	sqrt	0.00611	0.00452	0.276

