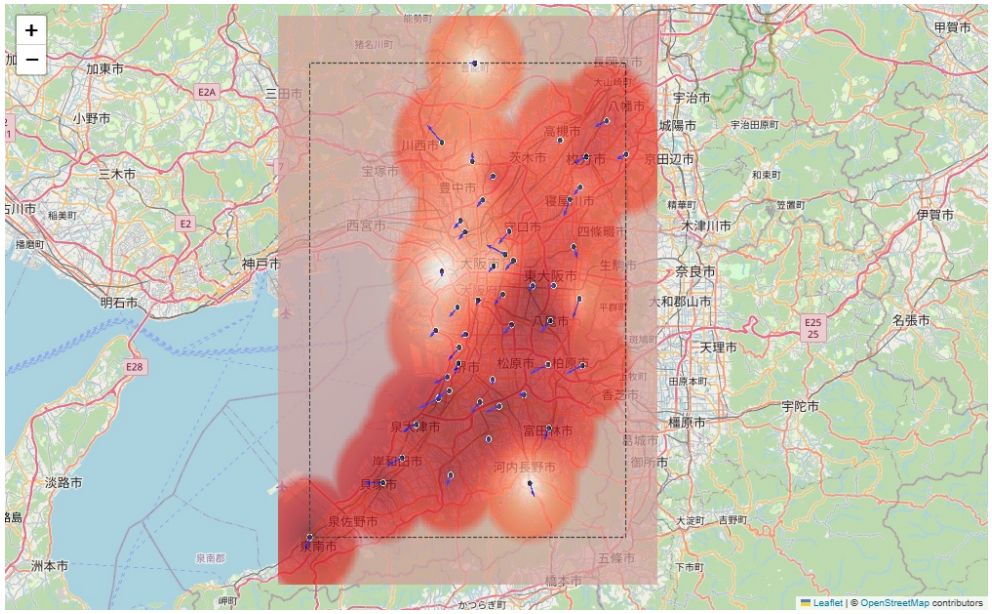
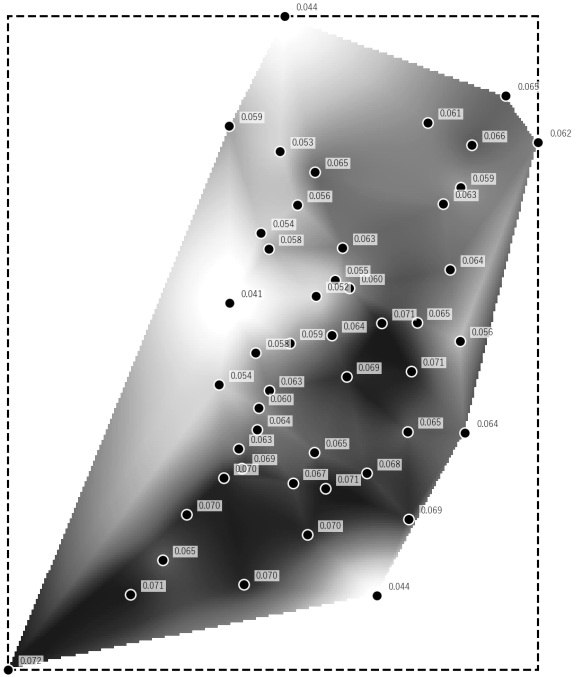
Universal Kriging Interpolation - 大阪府 - 2025/5/12 19H

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

$\hat{z}(x_0)$: 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	0.00627	0.00475	0.264
linear	log	0.00632	0.00491	0.251
linear	sqrt	0.00622	0.00475	0.275
gaussian	none	0.00620	0.00481	0.281
gaussian	log	0.00711	0.00542	0.052
gaussian	sqrt	0.00704	0.00526	0.071
exponential	none	0.00570	0.00439	0.391
exponential	log	0.00573	0.00444	0.386
exponential	sqrt	0.00567	0.00434	0.398
spherical	none	0.00580	0.00449	0.369
spherical	log	0.00598	0.00460	0.330
spherical	sqrt	0.00595	0.00452	0.338