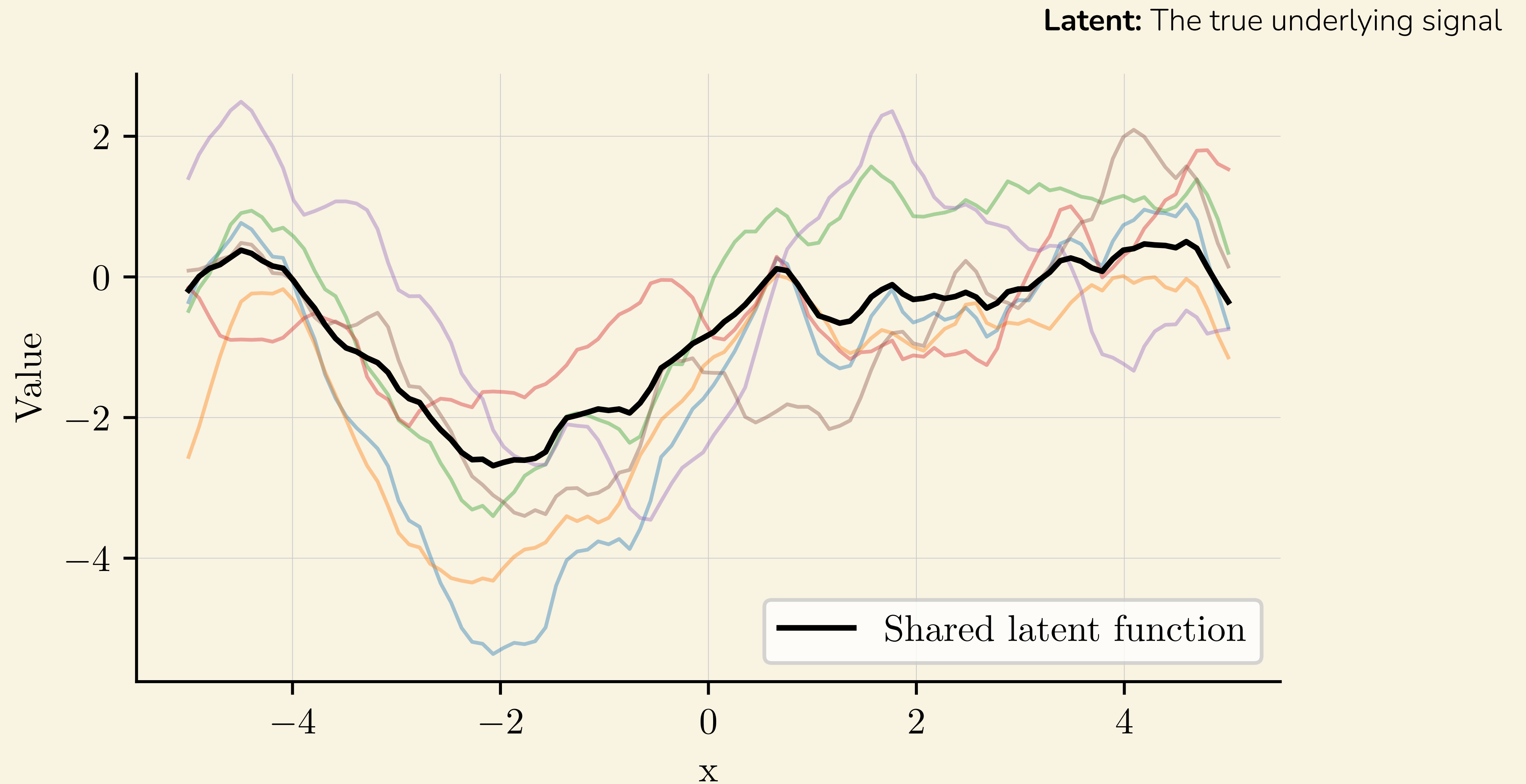
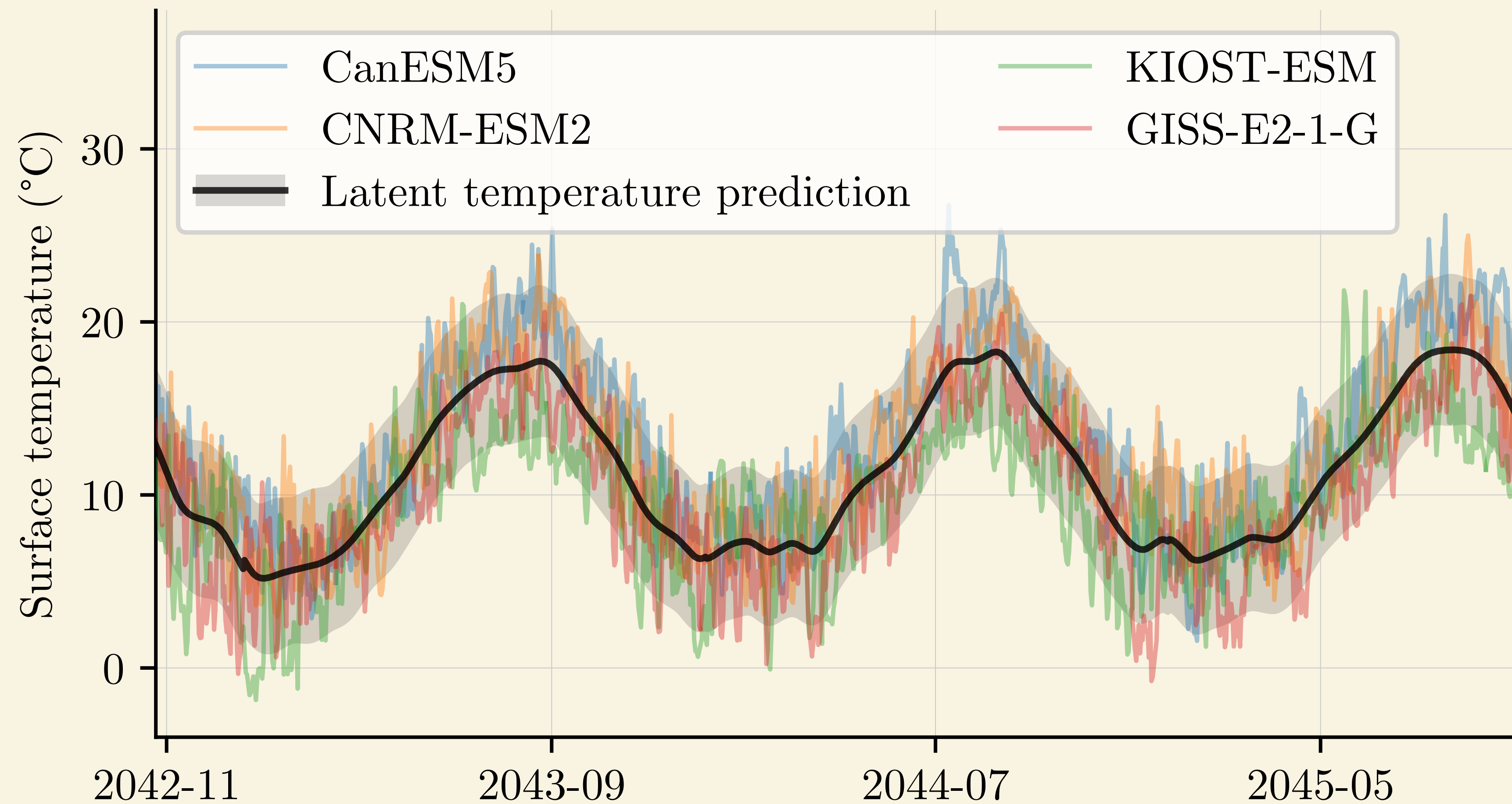


Question: How to extract the latent climate signal from multiple models (or datasets)?



Results:



The maths:

$g(\mathbf{X})$ = the true latent function

$f(\mathbf{X}) = g + \text{some noise}$

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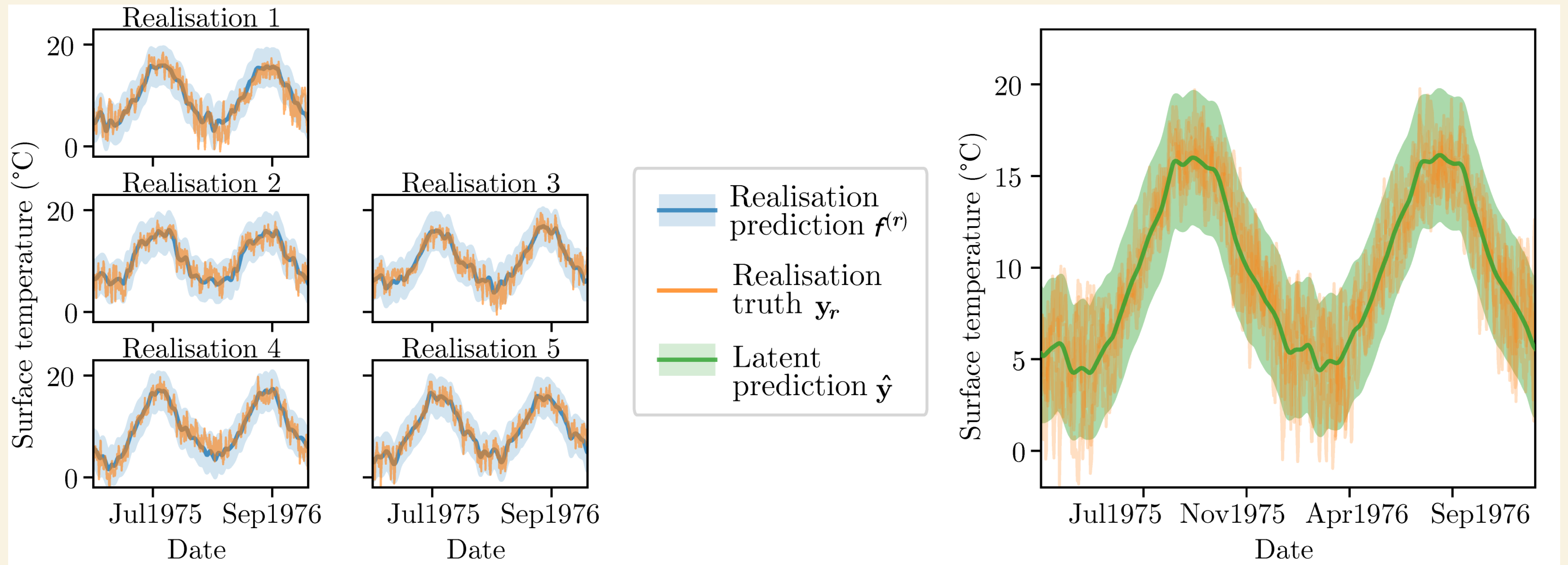
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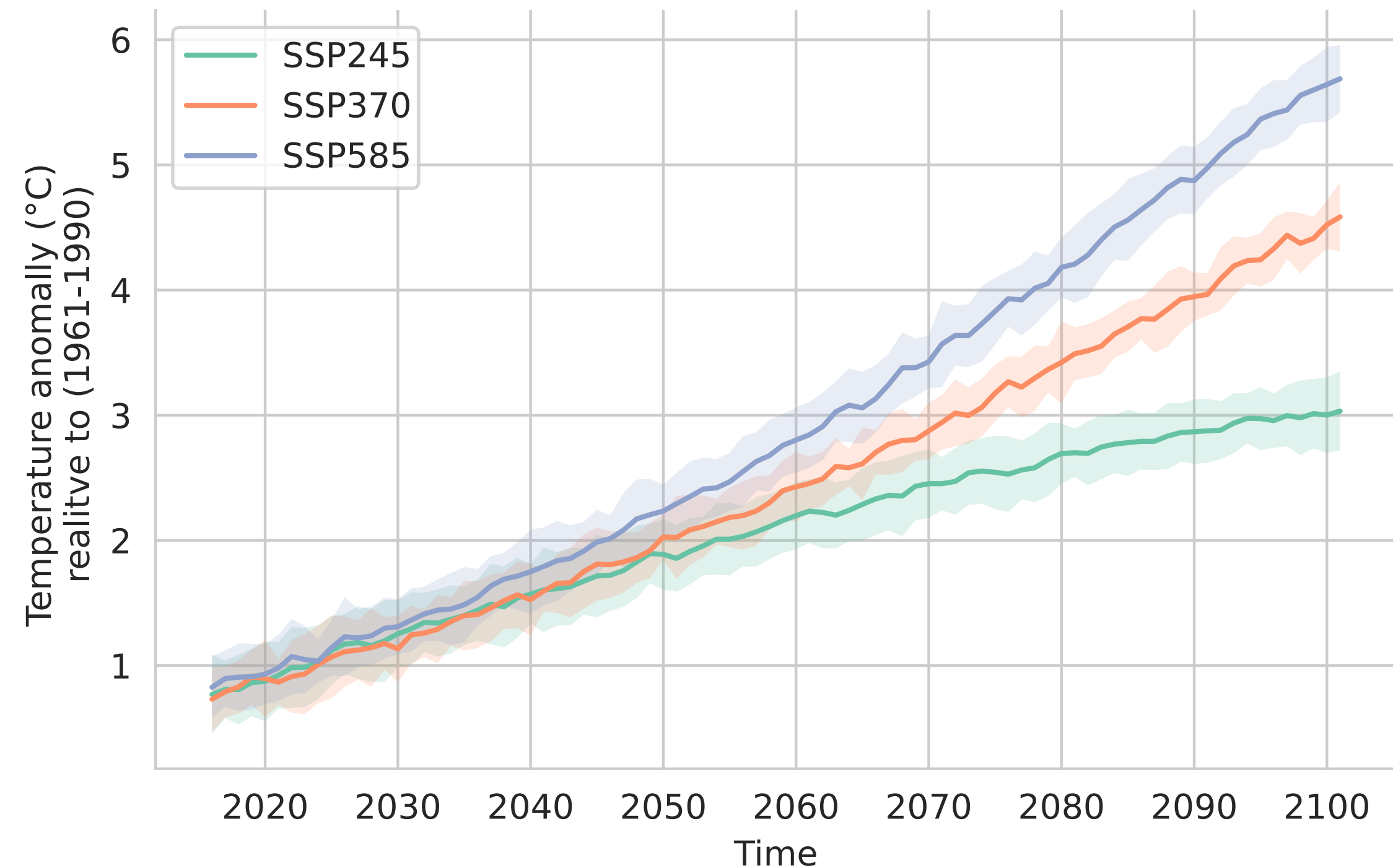
$$g(\mathbf{X}) \sim \mathcal{GP}(\mathbf{0}, k_g(\mathbf{X}, \mathbf{X}'))$$

$$f^{(r)}(\mathbf{X}) \sim \mathcal{GP}(\mu_{g|\mathbf{y}}, k^{(r)}(\mathbf{X}, \mathbf{X}'))$$

What it looks like:



Uses:



Probabilistic climate
model ensembles



Sparse hierarchical
Gaussian processes



github.com/mattramos/bayesian_ensembling

github.com/mattramos/SparseHGP