

Predictand (y)

Variable to be constrained

Predictors (X)

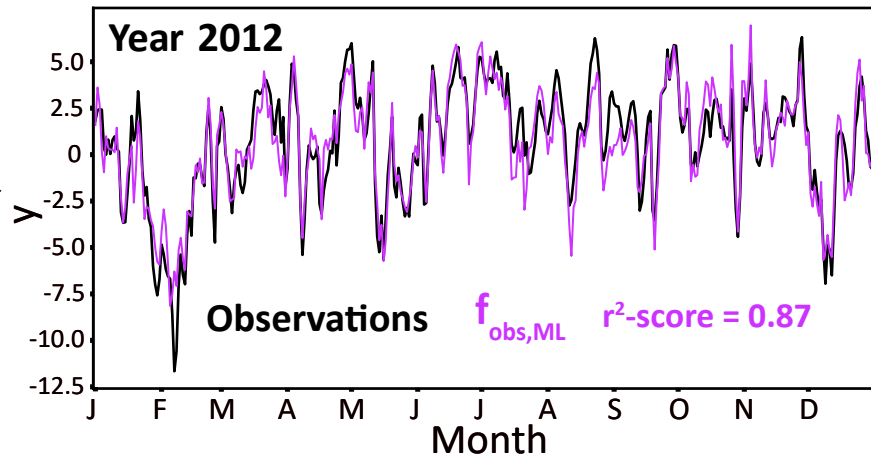
Process-oriented
controlling factors

Machine learning

Learn functions

$$y = f(X)$$

From observations (f_{obs})
From CMIP data k ($f_{\text{CMIP},k}$)



Evaluate climate-invariance of

$$\Delta y_k = f_{\text{CMIP},k,\text{ML}}(\Delta X_{\text{CMIP},k})$$

under climate change scenarios

Observational constraint

$$\Delta y_{\text{constrained}} = f_{\text{obs}}(\Delta X_{\text{CMIP},k})$$

