

AE-based Kernel ICA: Non-linear blind source separation

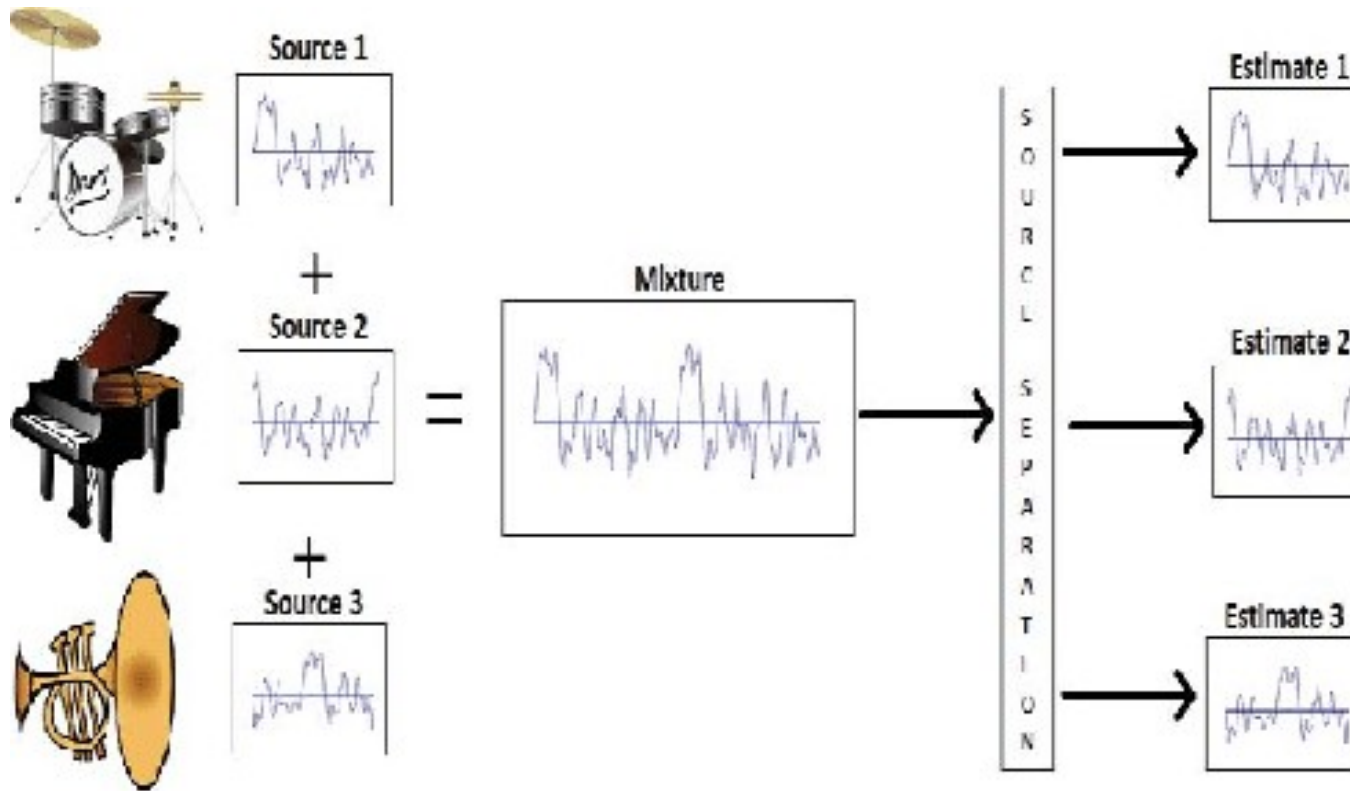
Christian Reimers

Benedikt Heidrich

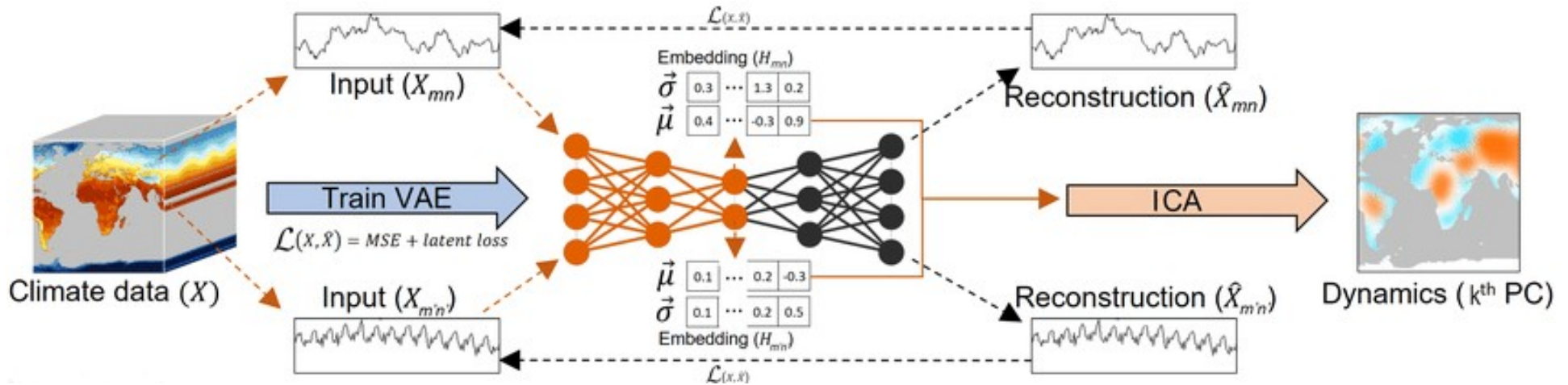
Xavier-Andoni Tibau Alberdi

Everyone contribute equally to this work

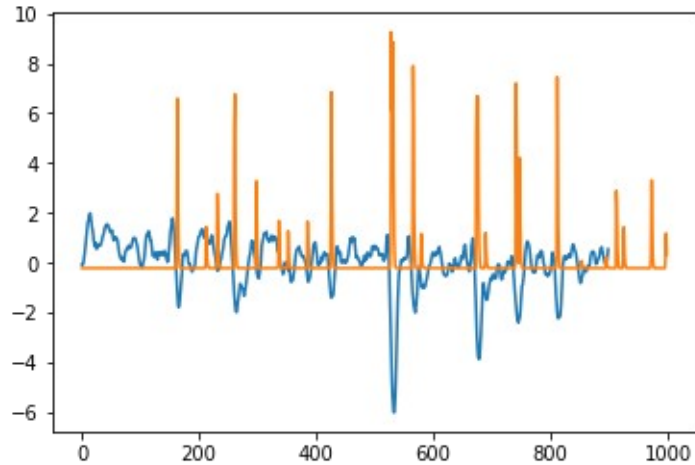




Tahir 2015

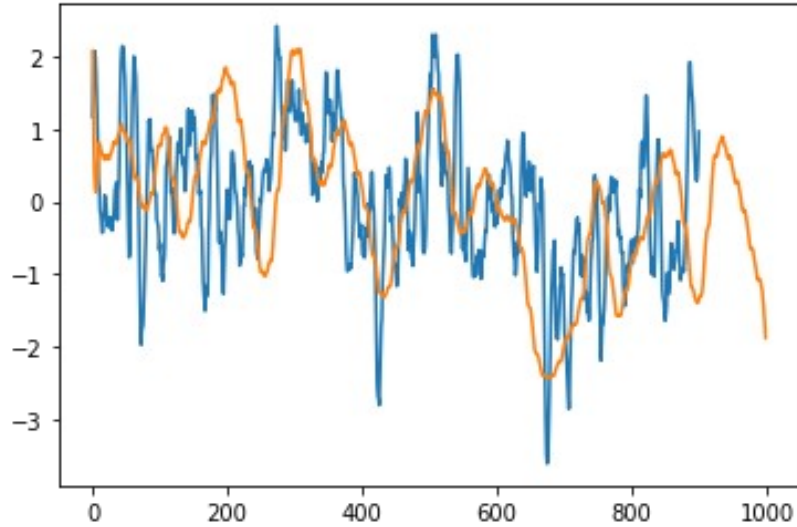


FastICA 32 AE



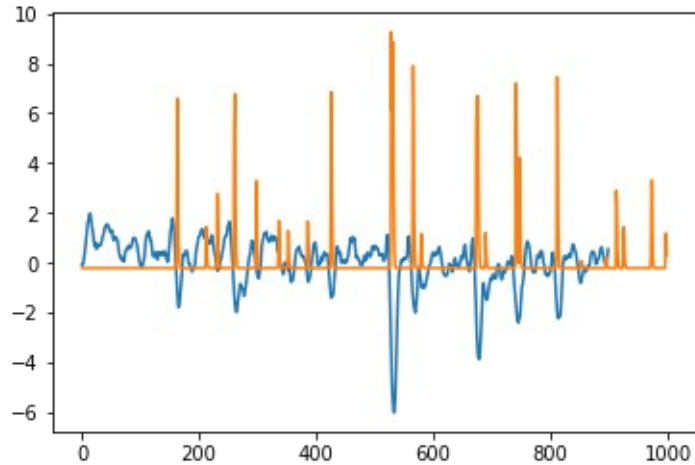
Corr: -0.4978

FASTICA 32 AE



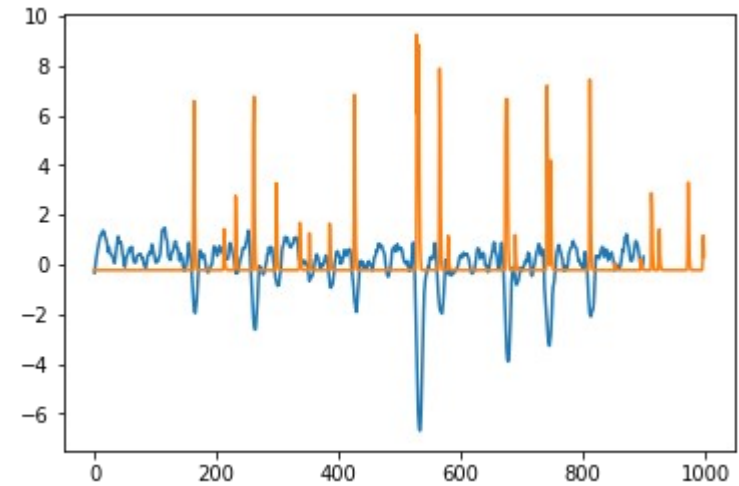
Corr: 0.4186

FastICA 32 AE



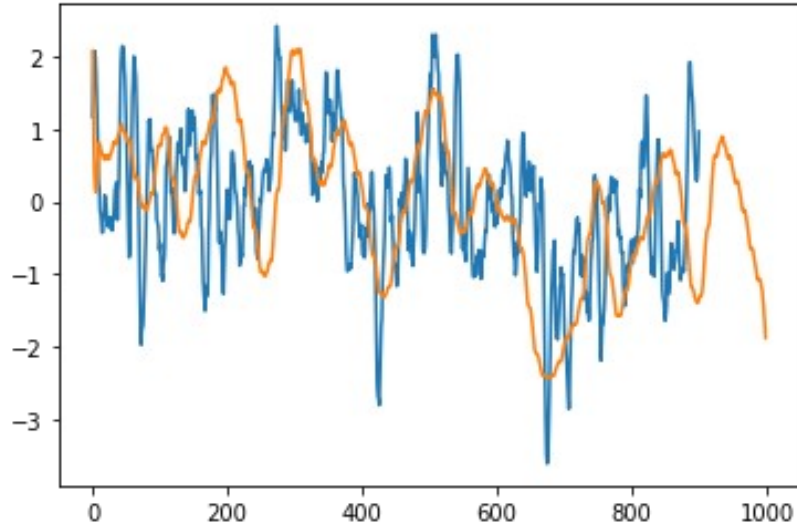
Corr: -0.4978

FastICA 32 AE Equator



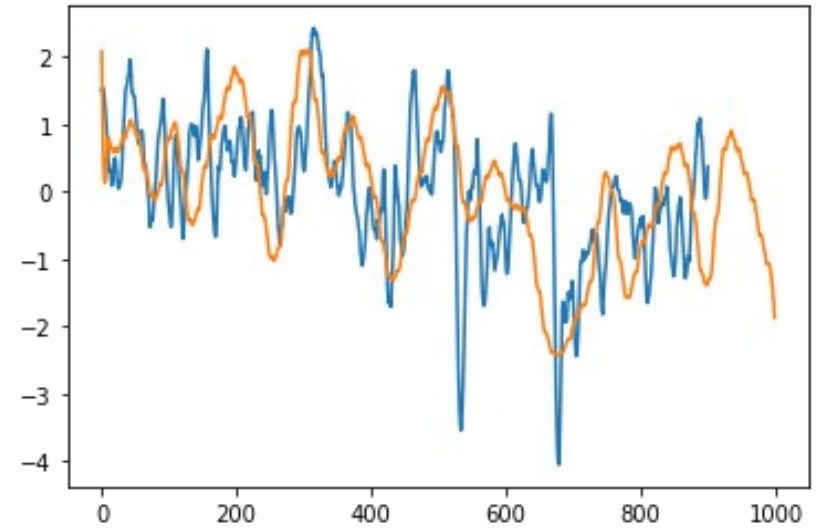
Corr: -0.5677

FASTICA 32 AE



Corr: 0.4186

FASTICA 32 AE SOUTH POLE



Corr: 0.4927

Future Work

- * Check results on the second time series
- * Find a better AE architecture
- * Use Beta-VAE for kernel approximation
- * Use other climate model data (CMIP6)
- * Consider time for AE (3D conv?)