Remote sensing evaluation of CLM4

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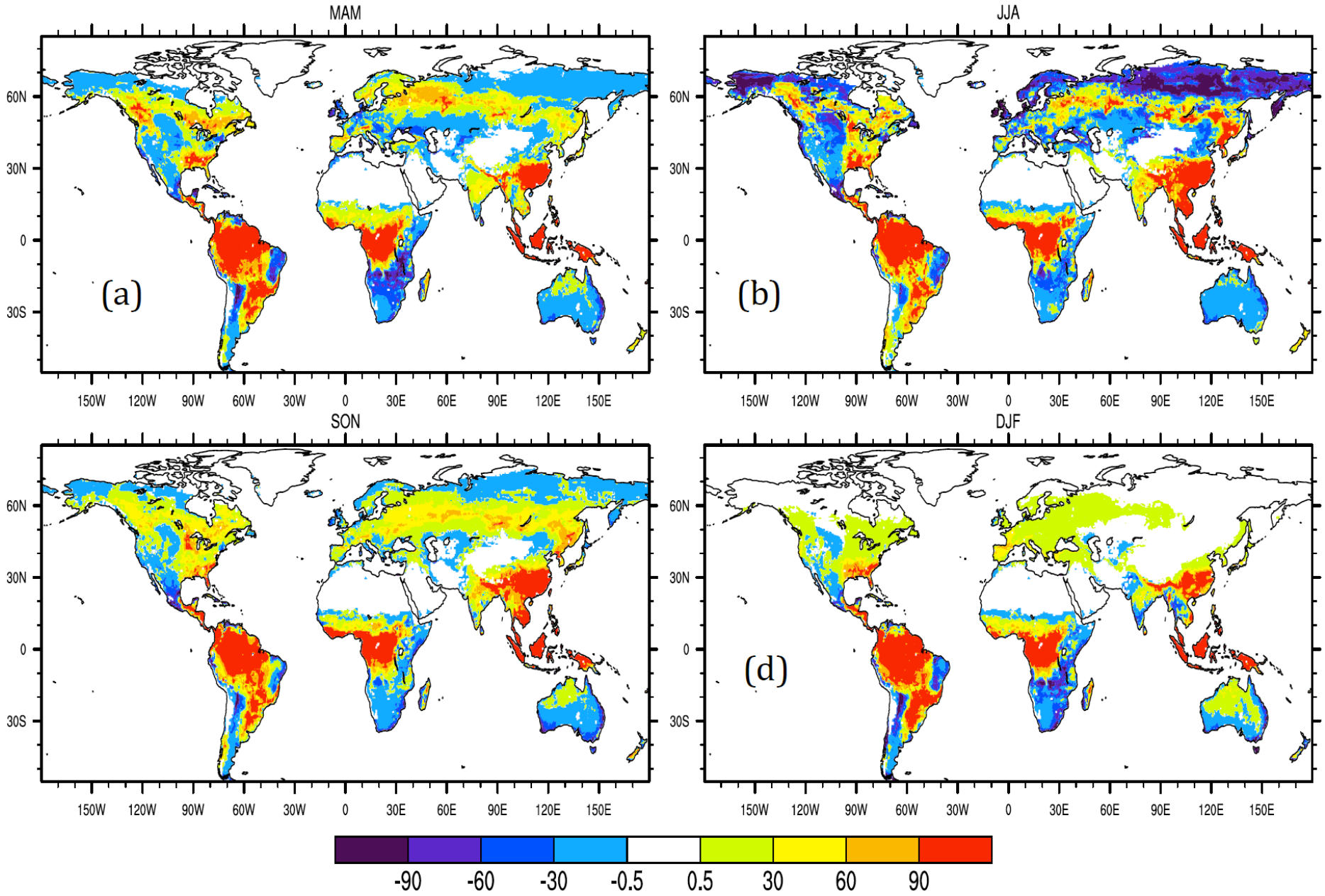
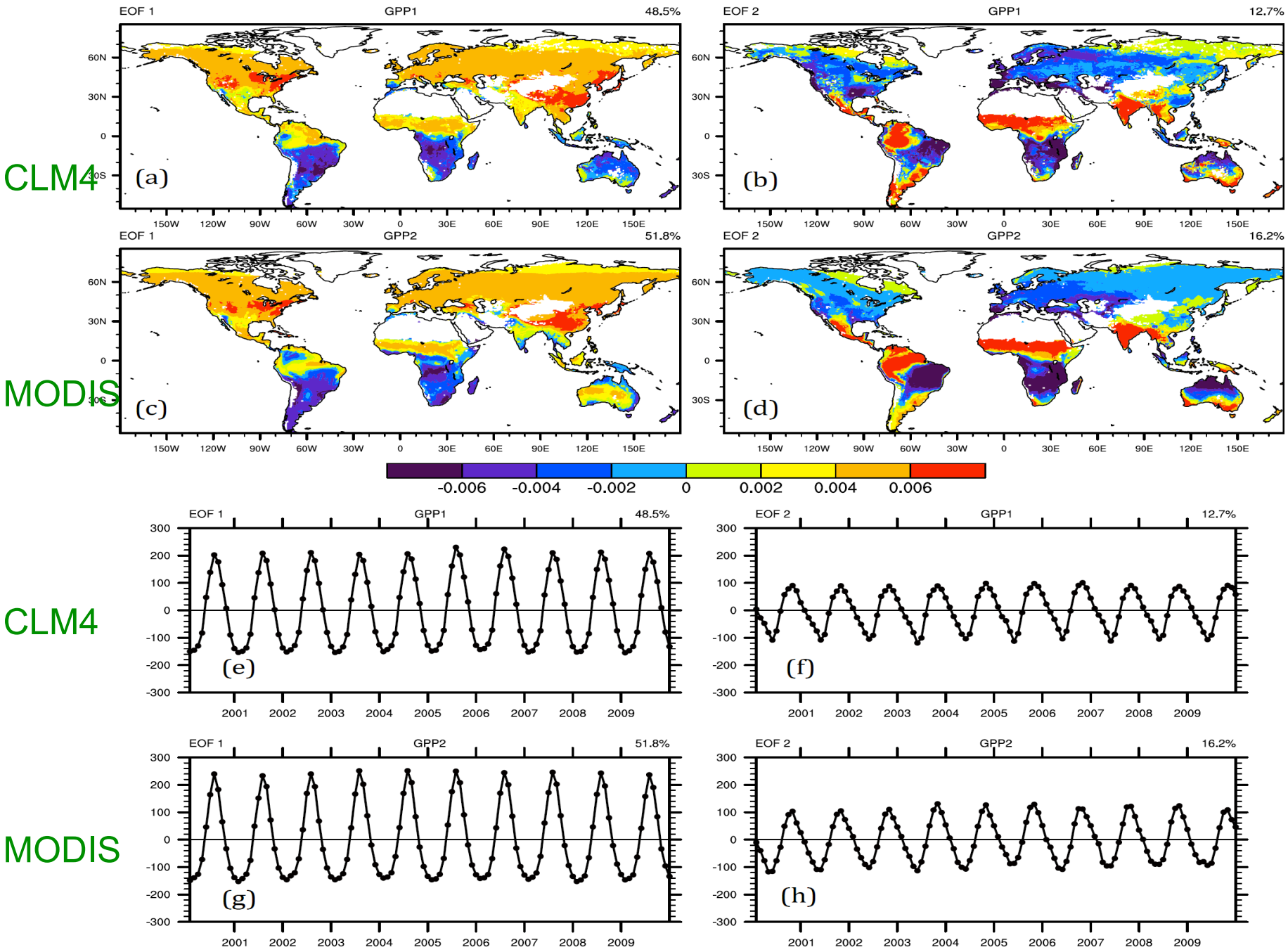
Outline

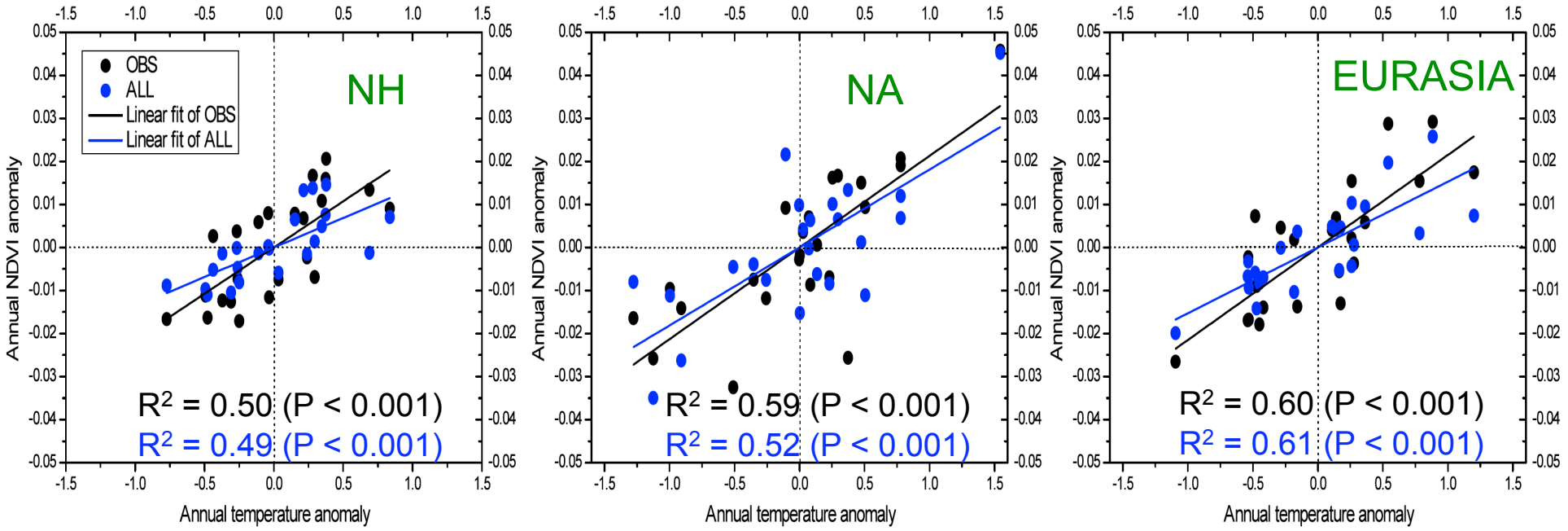
- Comparison of CLM4 GPP with MODIS GPP between 2000 and 2009
- Response of CLM4 and AVHRRs NDVI to spring temperature for the period 1982 and 2004



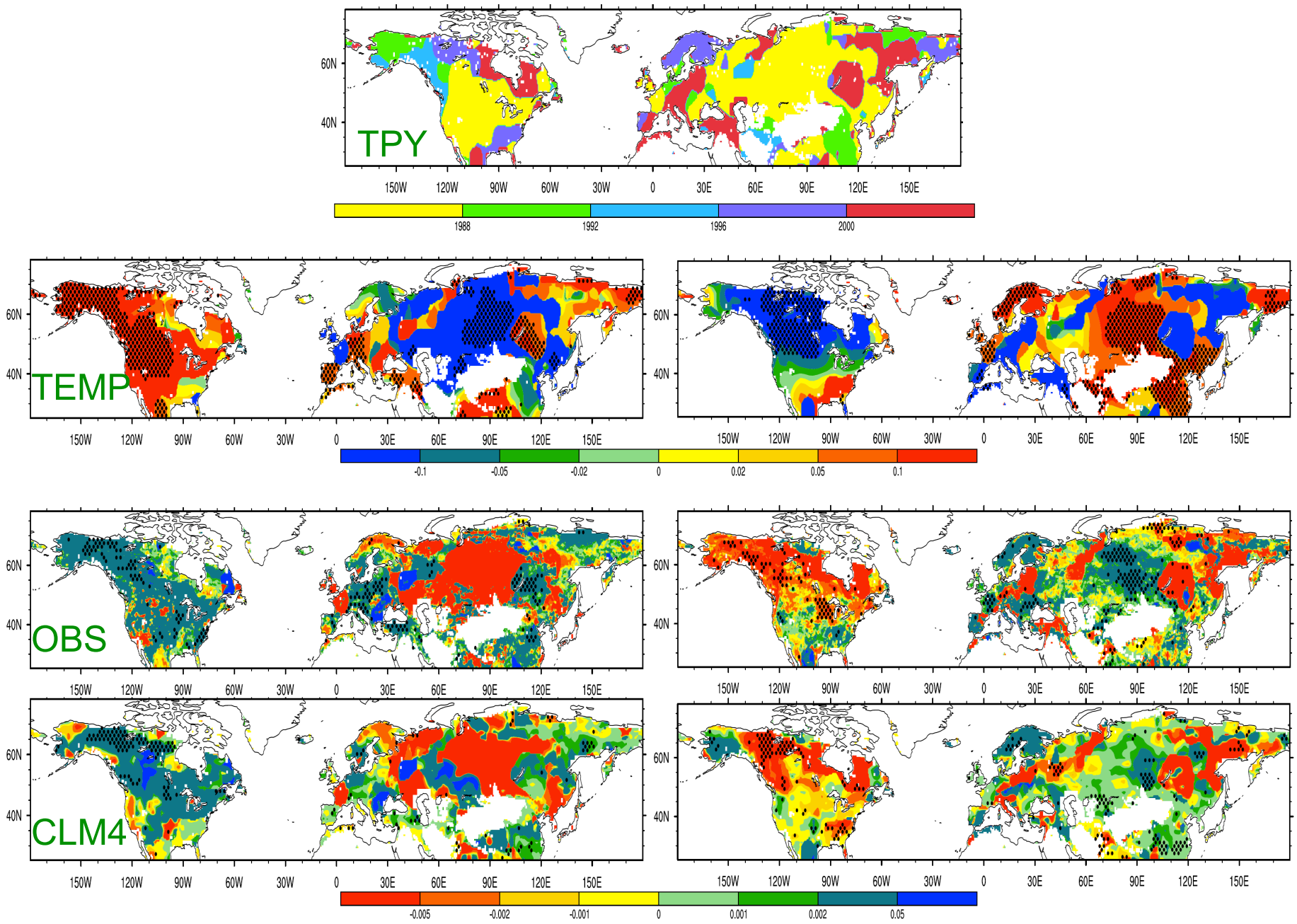
difference of the climatological mean GPP ($gCm^{-2}month^{-1}$)



EOF 1 and 2 of the monthly GPP



Responses of NDVI anomaly to temperature anomaly on AM (April-May) between 1982 and 2004



Trends of temperature and NDVI before and after the Turning Point Year (TPY) of temperature

Conclusions and future work

- Globally, CLM4 is in rough agreement with the remotely sensed primary production
- Temperature-controlled vegetation growth on AM was generally reproduced by the model
- Test the various factors influencing photosynthetic production, phenological parameterizations and vegetation growth
- More comprehensive estimations are still needed