Uncertainty reduction in CMIP model projections

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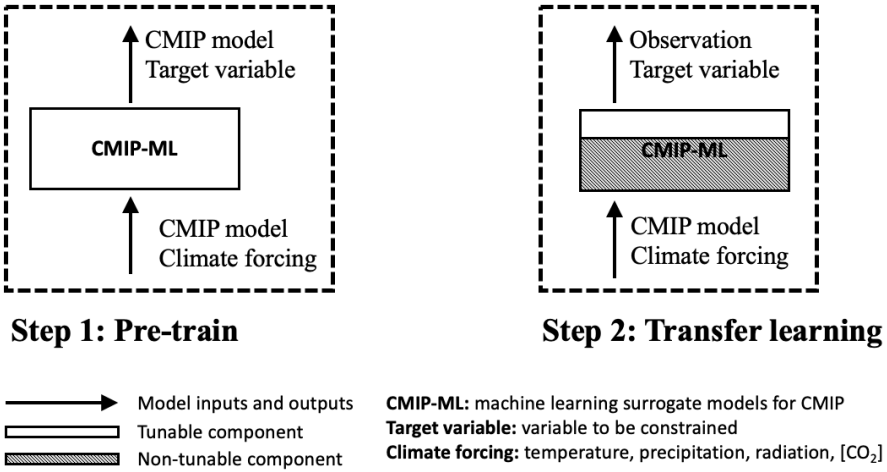
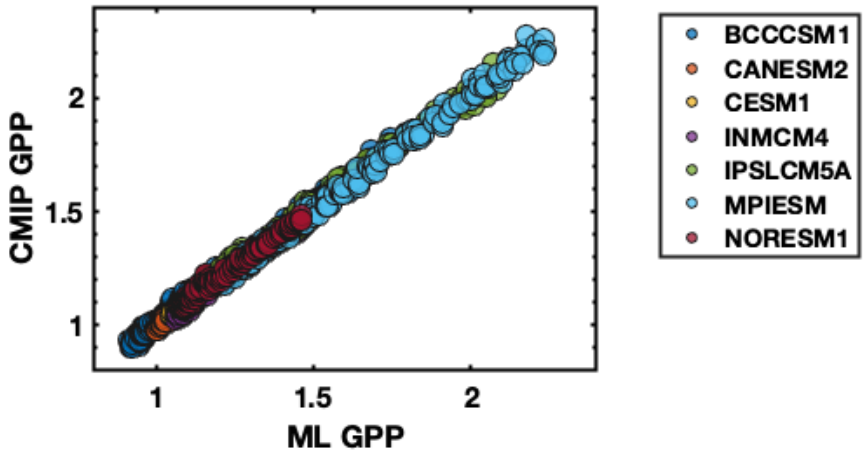
Science motivation and summary

CMIP model simulations of historical and future state/flux are subject to high uncertainties:

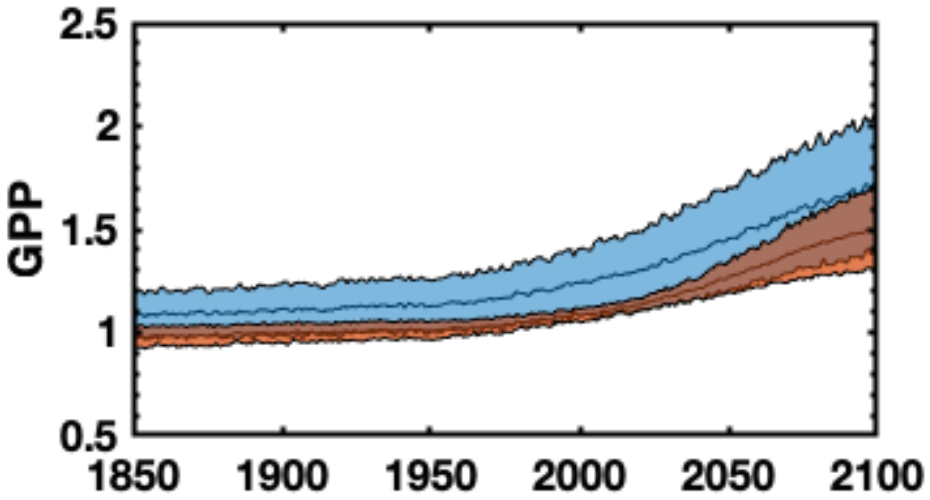
- **Parametric uncertainty**
- **Structure uncertainty**
- **Scenario uncertainty**





Results & future research

- Current work focus on GPP only
- Extend to GPP, RESP, LE, SH
- Compare CMIP5 vs CMIP6
- Improve physical constraints



Year	Uncertainty reduction
1950-2000	75%
2001-2050	80%
2051-2100	54%