

Ammonia concentration and emissions

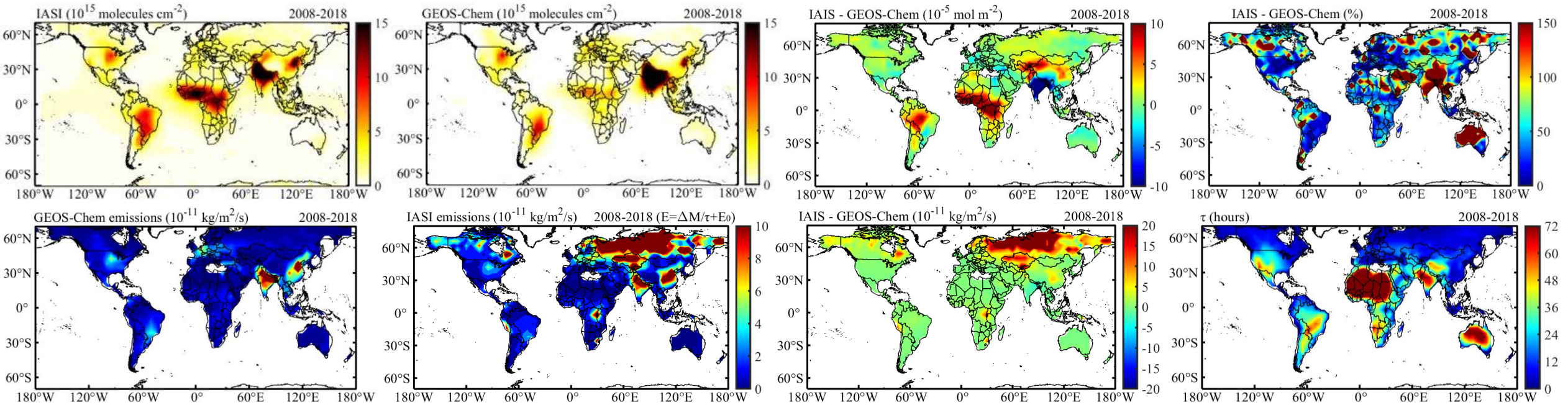
2021.2.3

Current progress

- Delta Concentration
- Delta emission
- Ratio of transport to emission/deposition

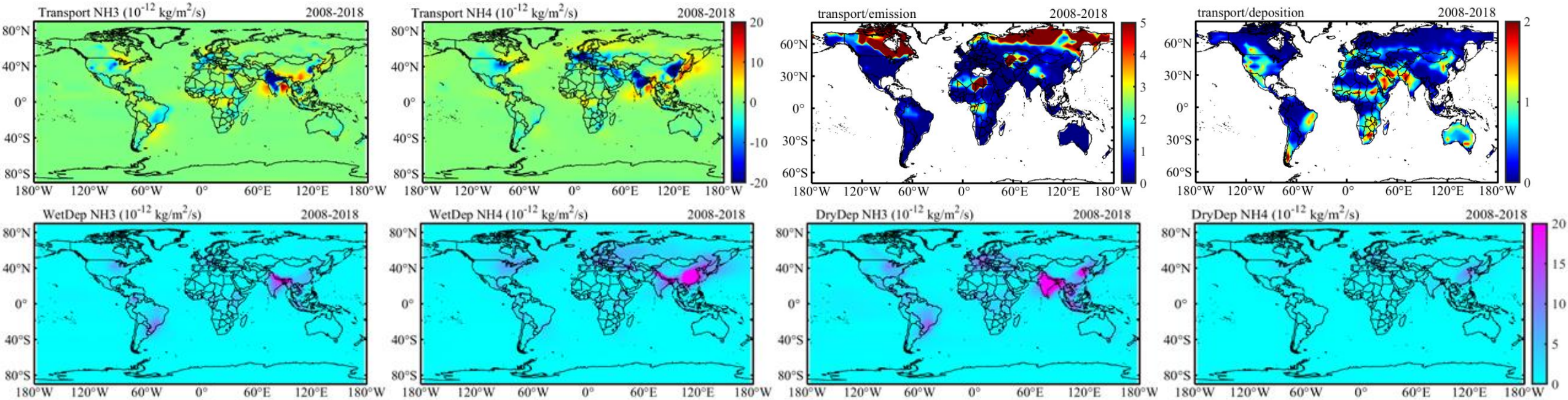
Concentration and emission difference between IASI and GEOS-Chem

- Absolute: $C_{obs} - C_{mod}$
- Relative: $\frac{|C_{obs} - C_{mod}|}{C_{obs}} \times 100\%$



Ratio of transport (NH₃ + NH₄) to emission/deposition in GEOS-Chem

Transport/emission, transport > 0
Transport /deposition, transport < 0



$$\tau_{mod} = \frac{M}{-\Delta M_{trans,chem,drydep,wetdep}}$$

$$\tau'_{mod} = \frac{M_{mod}}{-\Delta M_{NH_3, NH_4^+}^{drydep, wetdep}}$$

Future plan

- Filter the emission
- Emission trend
- Sort out the literature