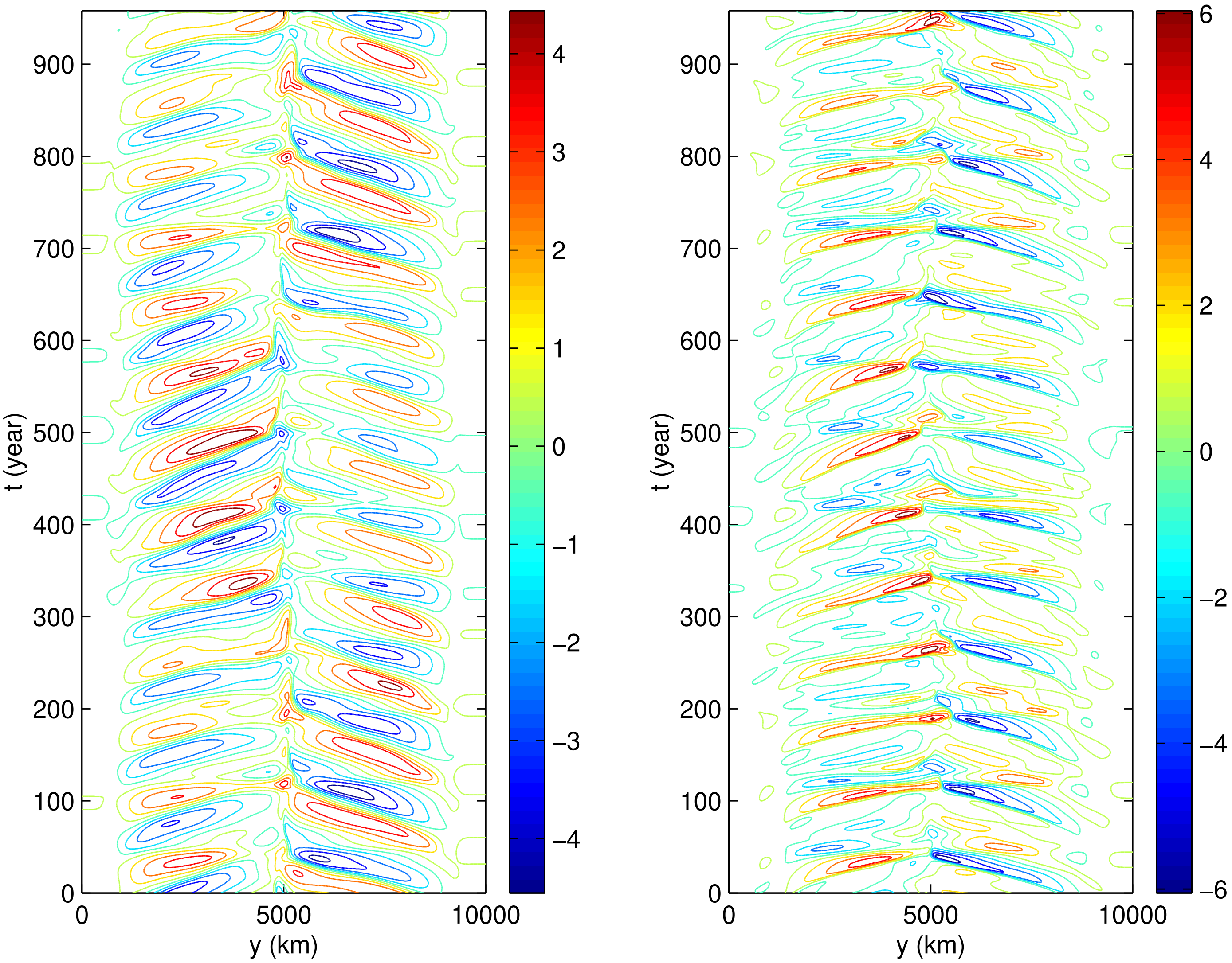
Coupling-induced chaos

◇ For weak friction the solutions are chaotic.



◇ There is centennial variability as well as decadal:

The $\bar{T}_i$ anomalies alternate between gyres.

This is low-order chaos: T_1 and T_2 are highly correlated.