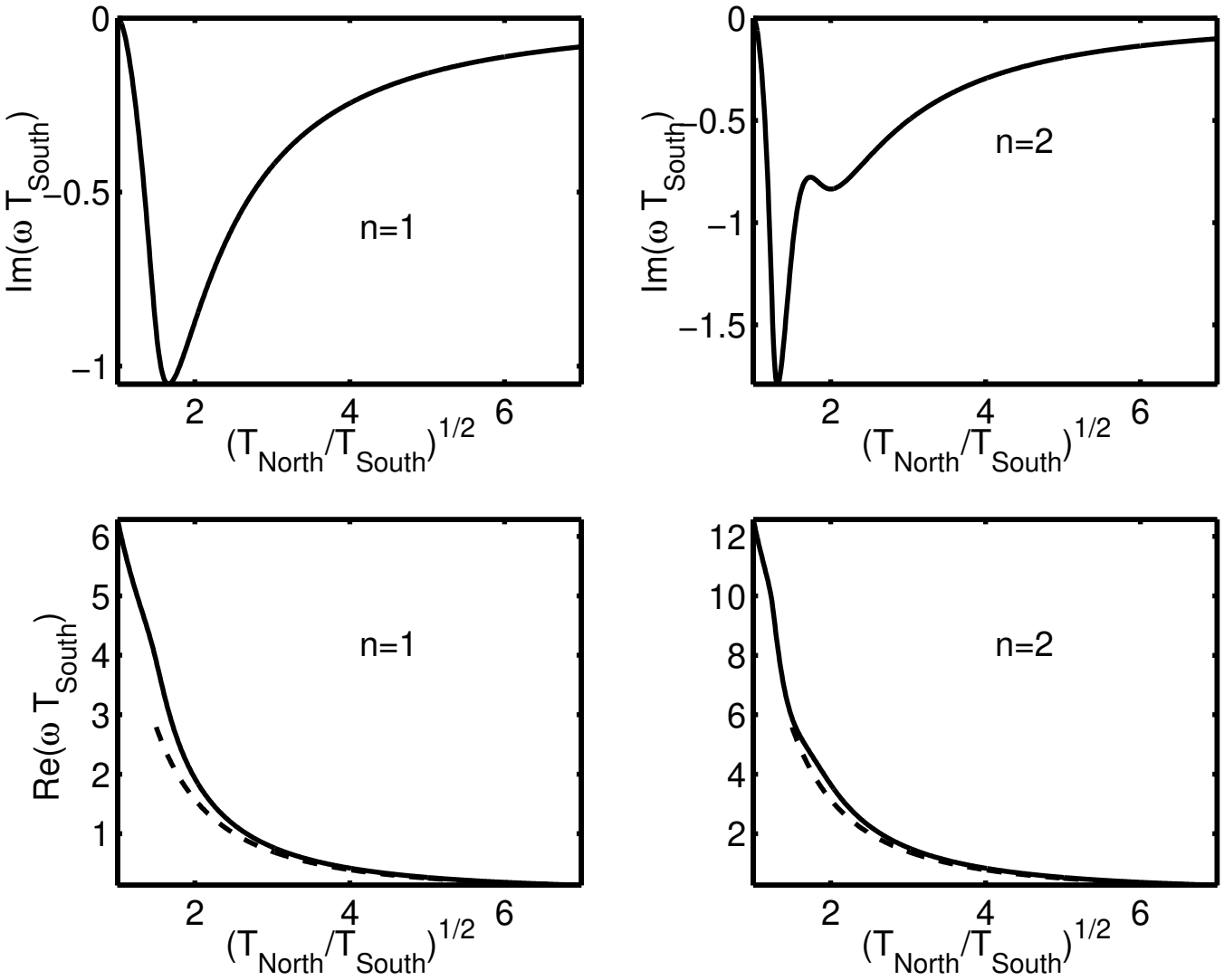
The eigenvalues



For $T_{North} \gg T_{South}$, the period approaches T_{North}.

For $T_{North} \to T_{South}$ (QGPV), the decay rate $\to 0$.