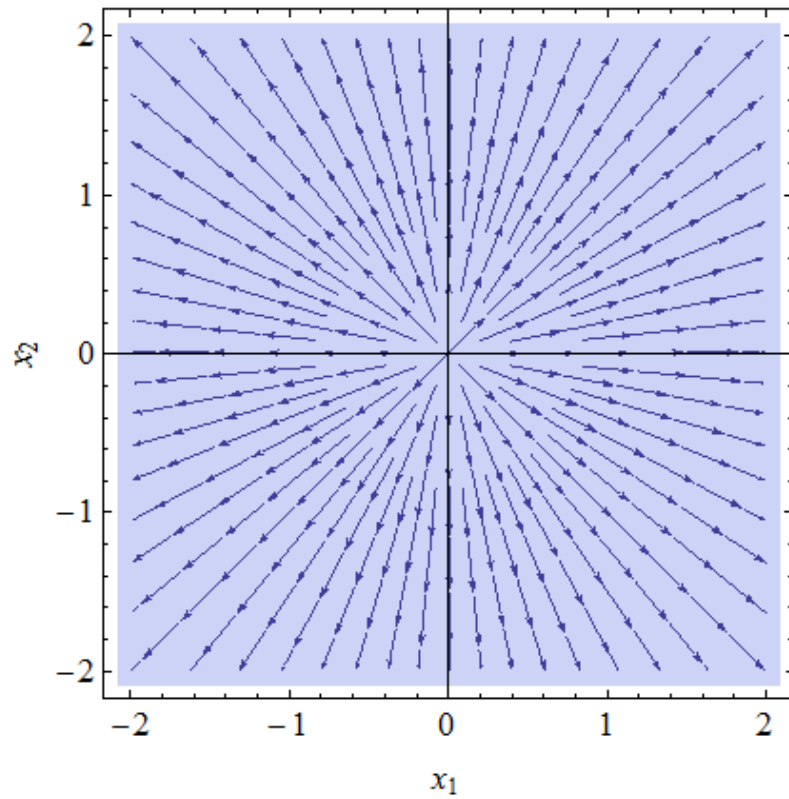# EXAMPLES OF PHASE DIAGRAMS OF TYPE IV: $A=\lambda I$, proportional to the identity

1. **Unstable star node:** $\lambda > 0$. **Example:** $A=\begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix}$

2. **Stable star node:** $\lambda < 0$: **Example:** $A=\begin{pmatrix} -2 & 0 \\ 0 & -2 \end{pmatrix}$