Linear System

$$\dot{v}_1 = v_1 + v_2$$
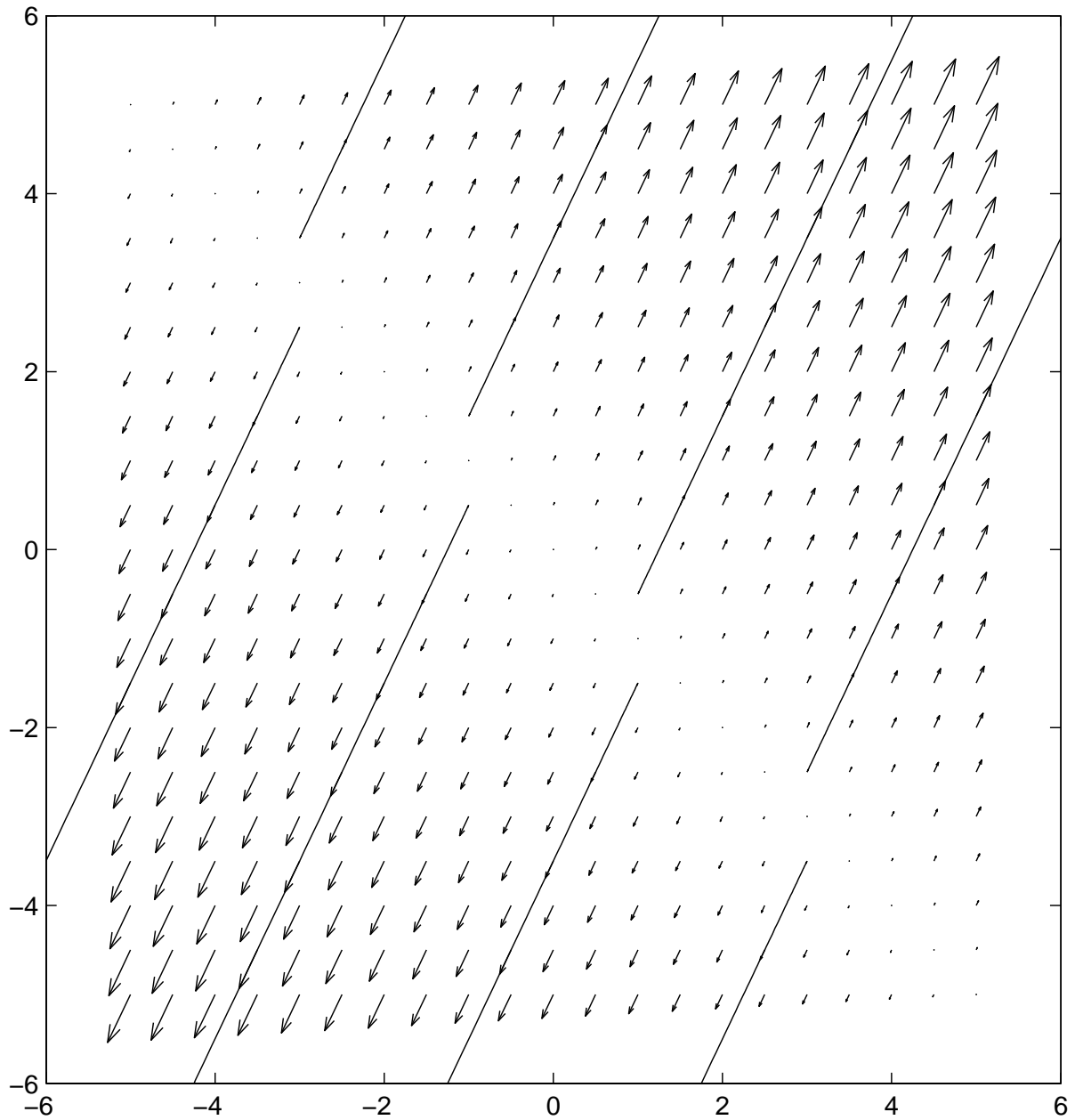$$\dot{v}_2 = 2v_1 + 2v_2$$

Figure 1: Direction field and sample trajectories for linear system with $(a, b, c, d) = (1, 1, 2, 2)$.