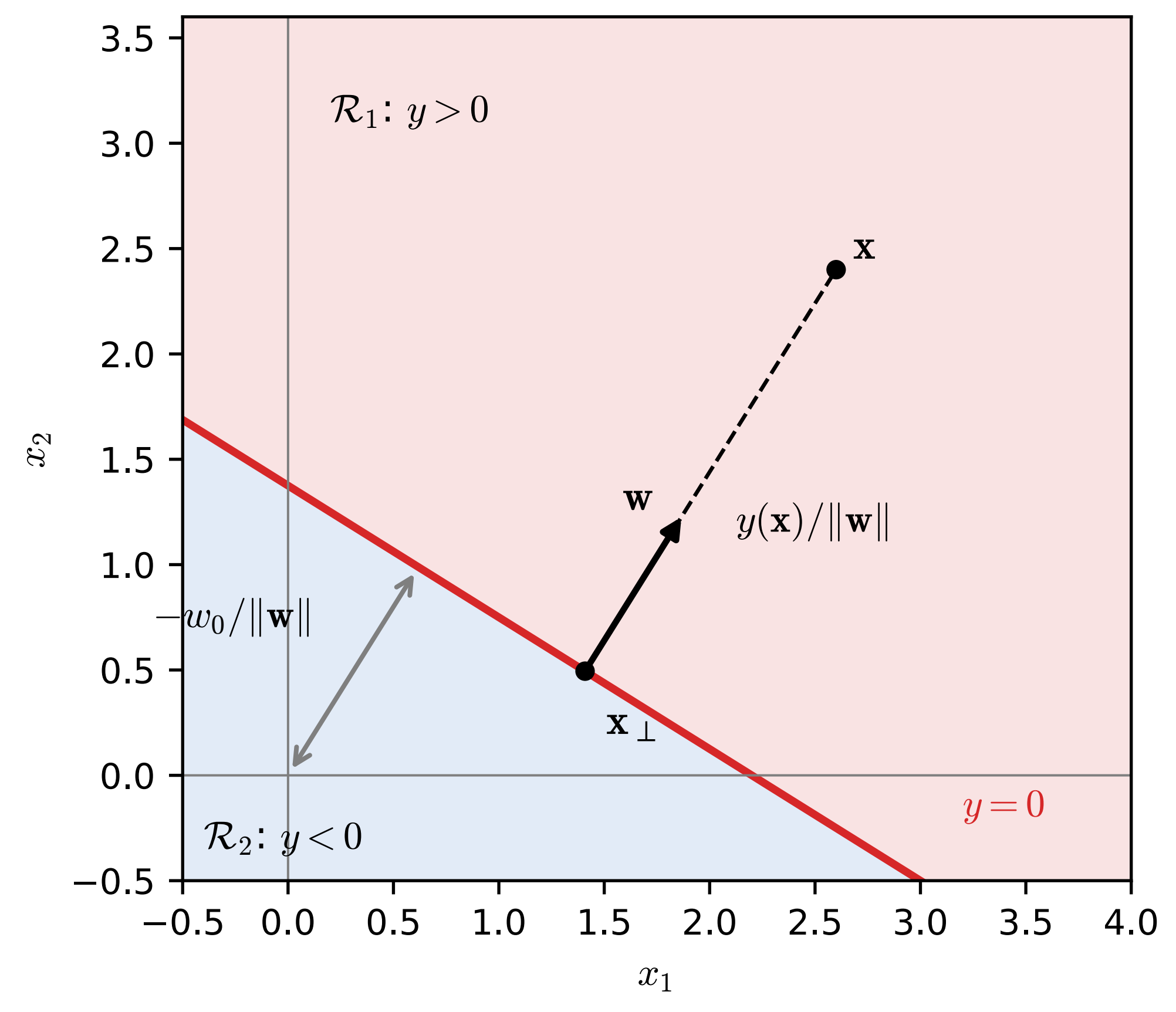

$\mathcal{R}_1$: $y > 0$
$\mathcal{R}_2$: $y < 0$
$y = 0$
$\mathbf{x}$
$\mathbf{w}$
$y(\mathbf{x})/\|\mathbf{w}\|$
$-w_0/\|\mathbf{w}\|$
$\mathbf{x}_\perp$
x_1
x_2
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0