

OPTIMAL CONTROL II: APPLICATIONS

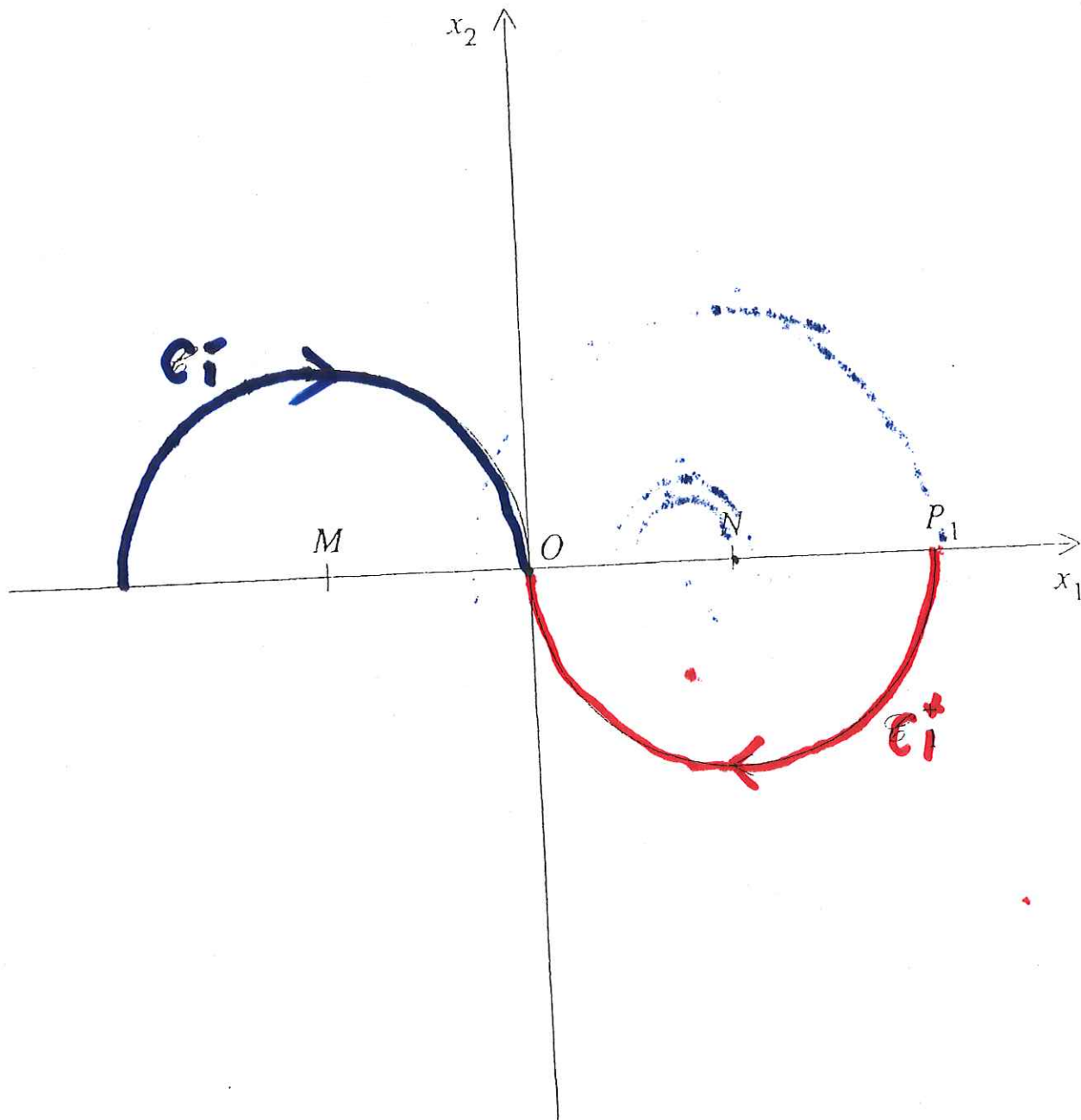
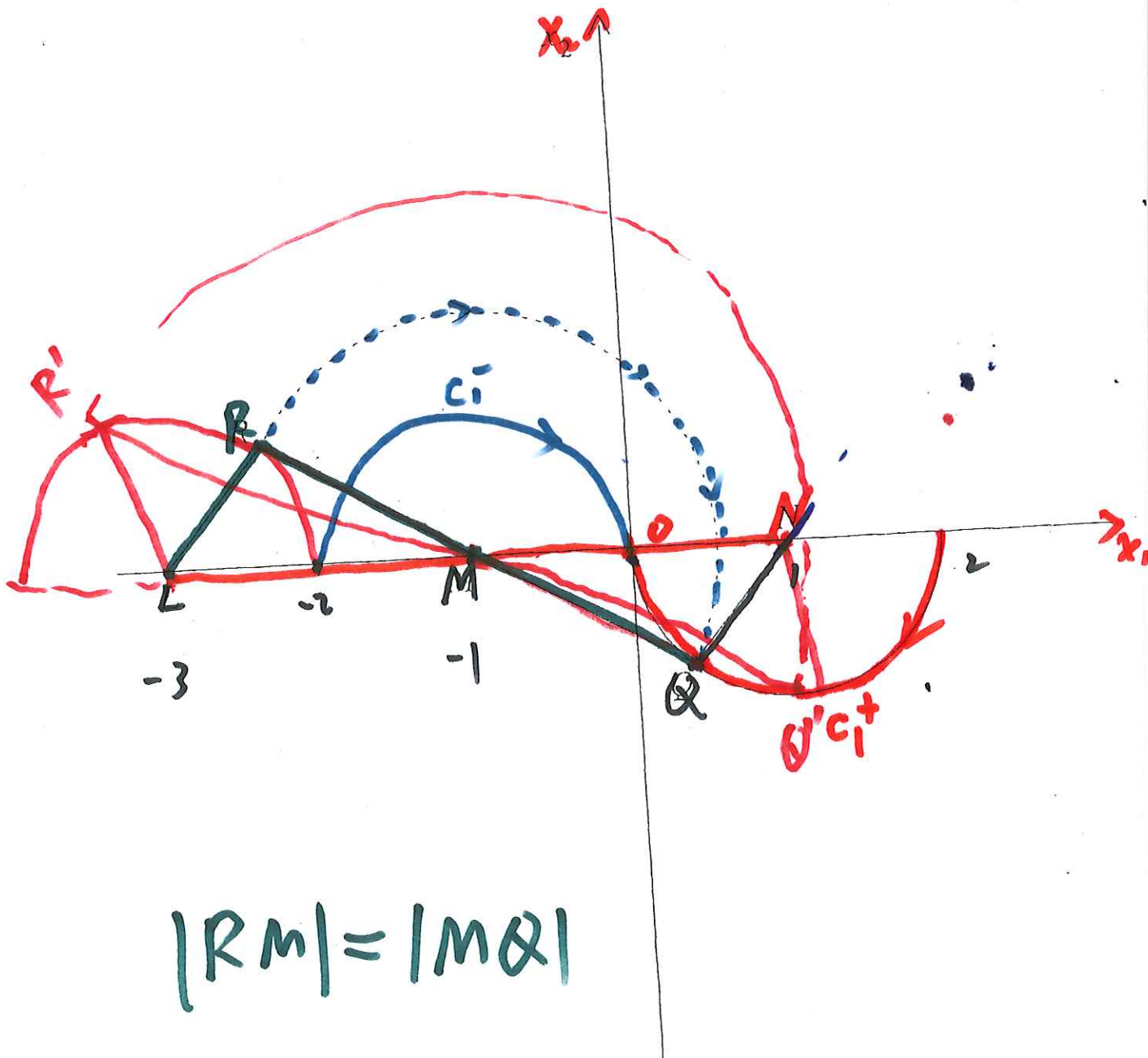


Figure 5.15 The two semicircular paths to the origin

... strategy for an initial state lying on \mathcal{C}_1^+ (or \mathcal{C}_1^-) is

TIME-OPTIMAL CONTROL OF LINEAR S.I.S.



$$|RM| = |MQ|$$

... the locus of R

(1.2)

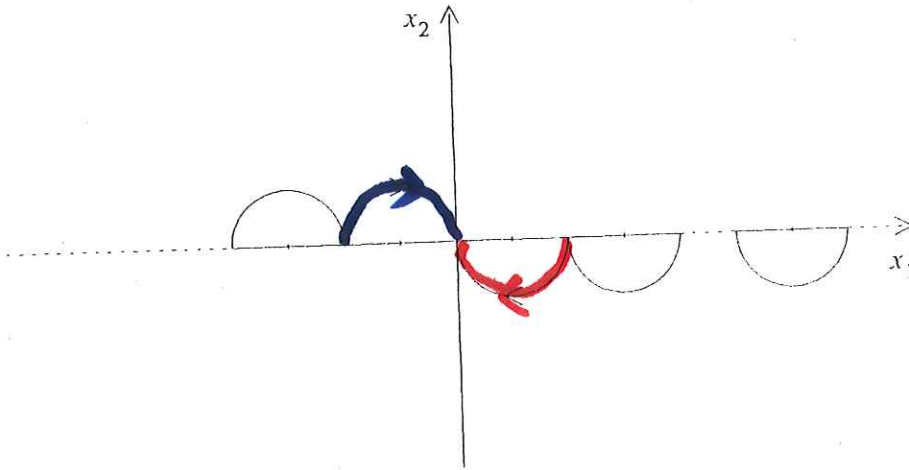


Figure 5.17 The switching curve is a series of semicircular loops

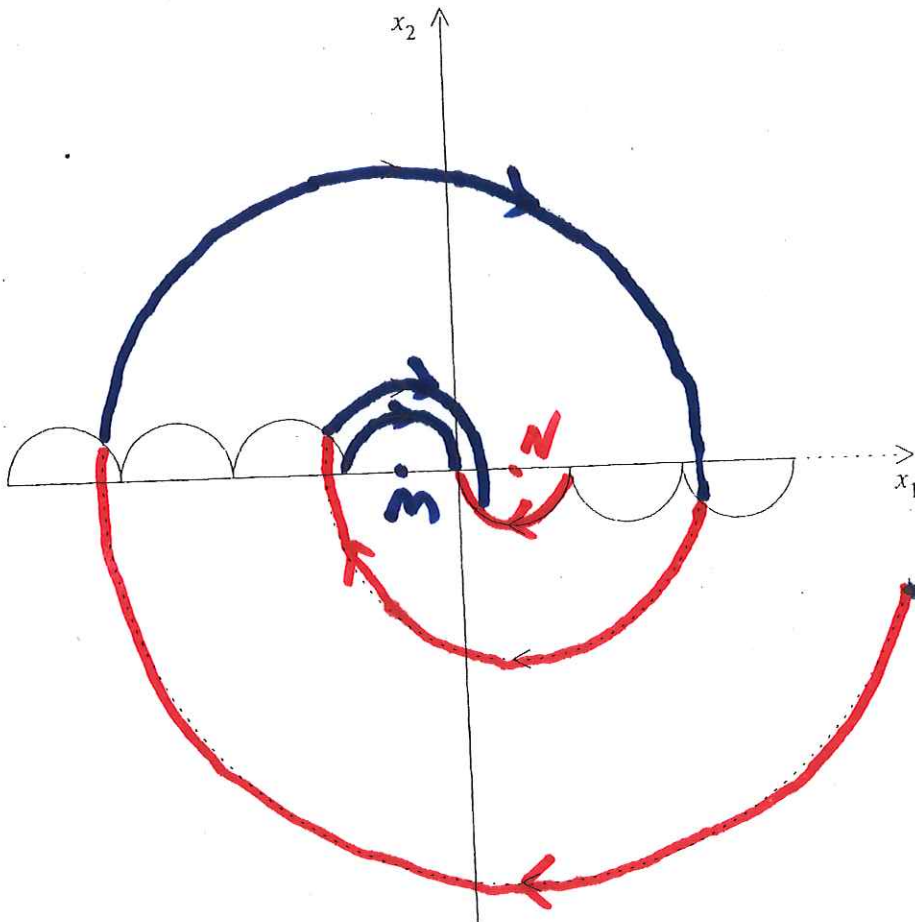


Figure 5.18 The switching curve and typical optimal paths

will, when slightly disturbed from equilibrium, perform small oscillations that are solutions of this equation.

If we allow for the effects of friction we have the damped