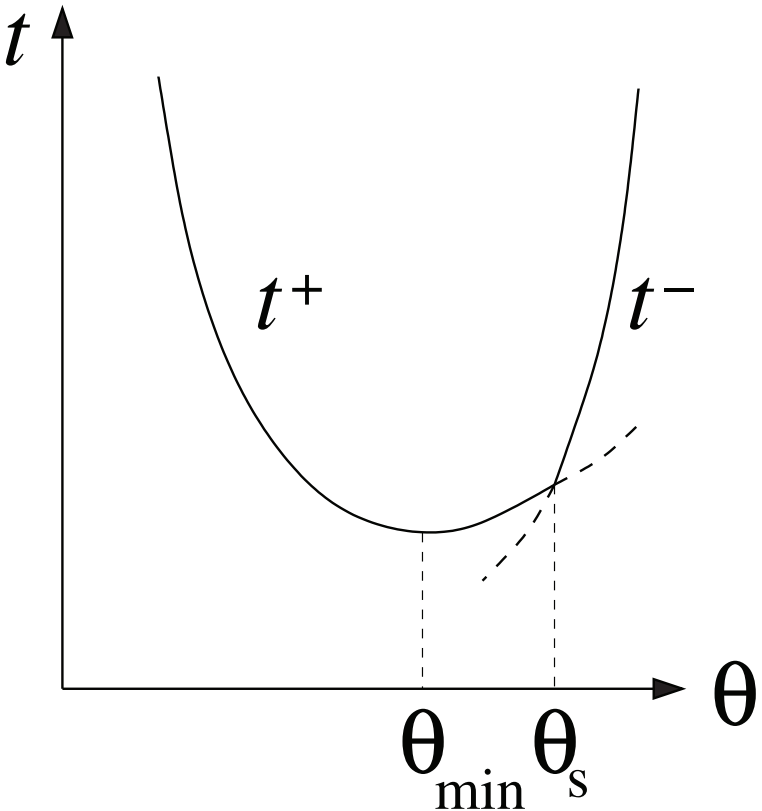
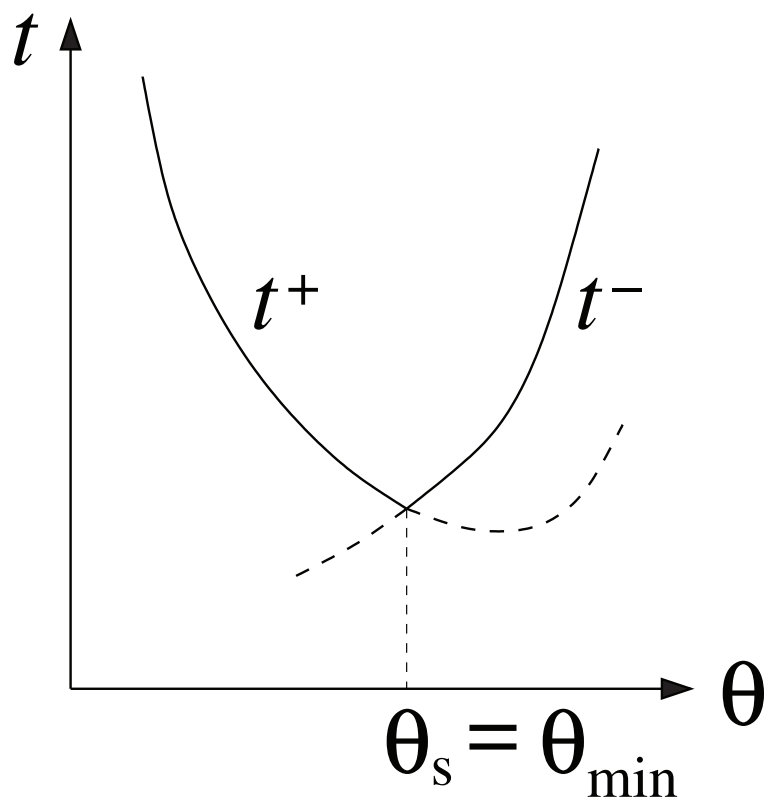



$v'^2 < V(V+v_g)$




$v'^2 > V(V+v_g)$