We consider boundary value problems associated with the second order equation \( y'' + f(t, y) = 0 \), \( 0 < t < 1 \), with the boundary conditions \( y(0) = 0, y'(1) = 0 \) (or \( y(1) = 0 \)), where the nonlinear function \( f(t, y) \) is singular as \( y \to 0^+ \).

We report progress on our attempt to synthesize previous results on multiple solutions (e.g. [J. Henderson and H. B. Thompson, Proc. Amer. Math. Soc. 128 (2000), 2373-2379]) with results on existence of solutions to singular boundary value problems (e.g. [S. Taliaferro, Nonlinear Anal. 3 (1979), 897-904]). We apply the shooting method to a sequence of nonsingular problems which “converge” to the given singular problem. (Received September 27, 2005)