

**Meeting:** 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-34-1192      **Miroslav Bartusek** ([bartusek@math.muni.cz](mailto:bartusek@math.muni.cz)), Faculty of Science, Masaryk University Brno, 602 00 Brno, Czech Rep, and **John R. Graef\*** ([john-graef@utc.edu](mailto:john-graef@utc.edu)), Department of Mathematics, University of Tennessee at Chattanooga, Chattanooga, TN 37403. *Nonlinear Limit-Point/Limit-Circle Results for Half-Linear Equations.*

The authors consider the second order half-linear differential equation

$$(a(t)|y'|^{p-1}y')' + r(t)|y|^p \operatorname{sgn} y = 0, \tag{E}$$

where  $a(t) > 0$ ,  $r(t) > 0$ , and  $p$  is a positive constant. They give necessary and sufficient conditions for equation (E) to be of the nonlinear limit-circle type. Examples are given to illustrate the results, and the relationship to the classical linear results of Dunford and Schwartz is discussed. (Received October 04, 2004)