OSCILLATION THEORY OF HALF-LINEAR
SECOND ORDER DIFFERENTIAL EQUATIONS

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Recently, considerable attention has been paid to oscillation theory of the half-linear second order differential equation

$$(*) \qquad (r(t)\Phi(x'))' + c(t)\Phi(x) = 0, \quad \Phi(x) = |x|^{p-2}x, \ p > 1.$$

The aim of this talk is to present the results of this investigation. It will be shown that oscillation theory of (*) is very similar to oscillation theory of the Sturm-Liouville linear equation

$$(**) \qquad\qquad (r(t)x')' + c(t)x = 0$$

(which is the special case $p = 2$ in (*)). Discrepancies in oscillation theories of (*) and (**) will also be discussed.