1116-35-1792   **Stephen B Robinson*** (`sbr@wfu.edu`) and **Mauricio Rivas**. *Eigencurves and Resonance.*
This paper describes the existence of (weak) solutions of the nonlinear boundary value problem

$$
\begin{aligned}
-\Delta u &= \mu\, m_2 u\, +\, f(x,u) && \text{in } \Omega \\
\frac{\partial u}{\partial \nu} + b(x)u &= \lambda\, m_1 u\, +\, g(x,u) && \text{on } \partial\Omega
\end{aligned}
\tag{1}
$$

where Ω is a smooth bounded region in $\mathbb{R}^N$, $(\lambda, \mu) \in \mathbb{R}^2$, f and g are Caratheodory functions satisfying sublinear growth conditions, and the coefficient function $b(x)$ and the weights m_1, m_2 lie in appropriate L^p-spaces. In particular we characterize *eigencurves* $(\lambda, \mu_n(\lambda))$ associated with the problem and then prove existence for resonance problems subject to a generalized Landesman-Lazer condition. Our results were motivated by, and are complementary to, the recent work of Mavinga and Nkashama. (Received September 21, 2015)