1016-47-47Ali Sameripour* (asameripour@yahoo.com), Sameripour Ali, Mathematics Department,
Lorestan University, 6814983418 Khoram Abade, Lorestan, Iran. Topics on The Spectral Properties
Of Weighted Non Selfadjoint Elliptic of Differential Operators.

Let $\Omega \subset \mathbb{R}^n$ be a bounded domain with smooth boundary $\partial \Omega \in \mathbb{C}^\infty$. Let

$$(Pu)(x) = -\sum_{i,j=1}^{n} \frac{\partial}{\partial x_j} \left(\omega^2(x) a_{ij}(x) Q(x) \frac{\partial u(x)}{\partial x_i} \right),$$

on the space $H_{\ell} = L^2(\Omega)^{\ell} = L^2(\Omega) \times \cdots \times L^2(\Omega)$ (ℓ -times) associated with the noncoercive bilinear form $\mathcal{P}[u, v] = \int_{\Omega} \left\langle \omega(x) a_{ij}(x) Q(x) \frac{\partial u(x)}{\partial x_i}, \omega(x) \frac{\partial u(x)}{\partial x_j} \right\rangle_{\mathbf{C}^{\ell}} dx$. In view of our ealier paper (see [10]), let the conditions made on the weighted function $\omega(x)$ be sufficiently more general than [10]. In this paper we investigate the the resolvent and so asymptotical formula for distribution of the eigenvalues (ev) of the operator P. (Received January 19, 2006)