1056-47-577   **Dhruba R Adhikari*** (`dadhikari@as.muw.edu`), 1100 College Street, MUW-100, Columbus, MS 39701, and **Athanassios G Kartsatos**. *Eigenvalues for Perturbations of Densely Defined Linear Maximal Monotone Operators.* Preliminary report.

Let X be a real reflexive Banach space with dual X^*. Let $L : X \supset D(L) \to X^*$ be densely defined linear maximal monotone. Let $T : X \supset D(T) \to 2^{X^*}$ be maximal monotone with $0 \in \overset{\circ}{D}(T)$ and $0 \in T(0)$, and $C : X \supset D(C) \to X^*$ bounded demicontinuous and of type (S_+) w.r.t. $D(L)$. An eigenvalue problem of the type $Lx + Tx + C(\lambda, x) \ni 0$ is solved, where $C(\cdot, x)$ is as above w.r.t. the variable x. The recent topological degree theory of the authors is used, utilizing the graph norm topology on $D(L)$, along with the methodology of Berkovits and Mustonen and recent invariance of domain and eigenvalue results by Kartsatos and Skrypnik. (Received September 13, 2009)

1