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**Rumen D Dimitrov\*** (rd-dimitrov@wiu.edu), Department of Mathematics, Western Illinois University, Macomb, IL 61455. *Dependence Degrees of co-atoms in the Lattice of Computably Enumerable Vector Spaces*. Preliminary report.

We study the Turing dependence degrees of the c.e. subspaces of  $V_\infty$ . Let  $T$  be a finite tree of computably enumerable Turing degrees that is partially ordered by Turing reducibility. Let  $L$  be a distributive lattice such that the set of its meet irreducible elements is isomorphic to  $T$  as a partial order. We have previously constructed a map that is a rank-preserving embedding of  $L$  into a principal filter of  $\mathcal{L}^*(V_\infty)$ . In this talk we will present some recent developments of our goal to make the map onto as well making the structure of the c.e. dependence degrees of the spaces that correspond to the meet irreducible elements of  $L$  isomorphic to  $T$  both as a partial order as well as degree-theoretically. (Received September 10, 2007)