962-03-967 **Rumen D. Dimitrov** (`rumen@gwu.edu`), Department of Mathematics, The George Washington University, Washington, DC 20052. *Prescribed Degree Lattice Embedding into $\mathcal{L}^*(V_\infty)$.*

Every finite distributive lattice can be embedded as a principal filter in $\mathcal{L}^*(V_\infty)$. Nerode and Smith used this result to show the undecidability of the theory of $\mathcal{L}^*(V_\infty)$. We study the relationship between $\mathcal{L}^*(V_\infty)$ and the upper semilattice of c.e. degrees by incorporating a prescribed degree structure into a principal filter of $\mathcal{L}^*(V_\infty)$.

Let $< T, 0 >$ be a finite upgrowing tree of c.e. degrees and $< T1, 1 >$ be a downgrowing tree reverse isomorphic to $< T, 0 >$. Let $< L, 0, 1 >$ be a finite distributive lattice with a substructure of meet irreducible elements isomorphic to $< T1, 1 >$. We show that $< L, 0, 1 >$ is embeddable in a principal filter (V) of $\mathcal{L}^*(V_\infty)$ preserving the least and biggest elements. This embedding maps the meet irreducible elements of $< L, 0, 1 >$ into spaces of degrees and dependence degrees corresponding to the structure $< T, 0 >$ of c.e. degrees.