1116-VA-2935 **Austin H Jones*** (ahjones3@ncsu.edu). *The lattice of ideals of a nilpotent Leibniz algebra.*

Let L be a nilpotent Leibniz algebra over a field of characteristic zero. The lattice of ideals of L (ordered by ideal sum and intersection), $\mathcal{I}(L)$, preserves and encodes some but not all of the structure of L. We examine what $\mathcal{I}(L)$ determines about L as well as what can be said about a nilpotent Leibniz algebra and a non-nilpotent Leibniz algebra whose ideal lattices are isomorphic. Some properties of the structures of both the non-nilpotent and the nilpotent Leibniz algebra are determined. Our work follows the path laid out in the Lie algebra case, with mostly minor adjustments. (Received September 23, 2015)