1154-08-1304 **Emily Frances Leiter Olson*** (olson13@stolaf.edu) and **Abror Khudoyberdiyev**.
Classification of Leibniz Algebras Corresponding to Three Dimensional Solvable Lie Algebras.

A Leibniz algebra, named after Gottfried Wilhelm Leibniz is defined as a module L over a commutative ring R, with a bilinear product, denoted by $[\_,\_]$, such that the following Leibniz identity is satisfied: $[x,[y,z]] = [[x,y],z] - [[x,z],y]$.

Right (respectively, left) multiplication is then a derivation. If in addition to the Leibniz identity, the bracket on L is alternating, $[x,x] = 0$, and anticommutativity, $[x,y] = -[y,x]$, then we say that L is a Lie algebra.

In this presentation we will examine a special type of Leibniz algebras, those associated with two and three dimensional solvable Lie algebras. In our examination, we adopt methods from representation theory, module theory, and rigorous parameter manipulation. Through basis changes and substitution, we are able to define some non-isomorphic Leibniz algebras that share similarities with the known Lie algebra. (Received September 14, 2019)