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Ibrahim Abdou Saleh* (iasaleh@math.ksu.edu), 2128 Prairie Glen Place, Manhattan, KS 66502. *A non commutative cluster structure on some hyperbolic algebras.* Preliminary report.

In this talk, I will introduce a non-commutative cluster structure that is related naturally to some Hyperbolic algebras like Weyl Algebras, classical and quantized universal enveloping algebras of the Lie algebra sl_2 and the quantum coordinate algebra of $SL(2)$. Some properties of this structure will be presented. The cluster structure gives rise to some combinatorial data, called cluster strings, which are used to introduce a class of representations of Weyl algebras. Irreducible and indecomposable representations are also introduced from the cluster strings. (Received August 17, 2011)