## 1154-57-1430Nancy Scherich and Sherilyn Tamagawa\* (shtamagawa@davidson.edu). Virtual<br/>Niebrzydowski Algebras and Trivalent Spatial Graphs. Preliminary report.

In this talk, we will introduce virtual Niebrzydowski algebras, algebraic structures with two ternary operations and a partially defined multiplication, whose axioms are motivated by the Reidemeister moves for Y-oriented virtual trivalent spatial graphs and handlebody-links. We will also show examples of the counting invariant on some trivalent spatial graphs. (Received September 15, 2019)