1145 - 57 - 665

Paige Graves, Sam Nelson and Sherilyn Tamagawa^{*}, Department of Mathematics, South Hall, Room 6607, University of California, Santa Barbara, CA 93106. *Niebrzydowski Algebras and Trivalent Spatial Graphs.*

In this talk, we will introduce Niebrzydowski algebras, algebraic structures with a ternary operation and a partially defined multiplication, whose axioms are motivated by the Reidemeister moves for Y-oriented trivalent spatial graphs and handlebody-links. We will also show that the counting invariant distinguishes some trivalent spatial graphs and handlebody-links. (Received September 12, 2018)