

1167-17-126

Ryan Moruzzi, Matthew Ondrus and Emilie Wiesner* (ewiesner@ithaca.edu), Ithaca College, 953 Danby Rd, Ithaca, NY 14850. *Weight modules for the insertion-elimination algebra*. Preliminary report.

The insertion-elimination algebra is a Lie algebra that can be realized as inserting and eliminating (or pruning) operators on the space of rooted trees. It is an infinite-dimensional (that is not finitely generated) Lie algebra with a triangular decomposition; using this structure, many representation-theoretic questions can naturally be asked about the insertion-elimination algebra. In this presentation, I'll talk about some of these questions where we've made progress and some where the insertion-elimination algebra presents new challenges. (Received March 03, 2021)