Contribution ID: **47** Type: **Scheduled Talks**

Weyl Groupoids, Young Diagrams and Borel Subalgebras

Wednesday, July 23, 2025 3:30 PM (1 hour)

Let $\mathbb{k}$ be an algebraically closed field of characteristic zero.
Let $\overset{\circ}{\mathfrak{g}}$ be the Lie superalgebra $\mathfrak{sl}(n|m)$ and let $\mathfrak{T}_{iso}$ be the groupoid introduced by Sergeev and Veselov with base the set of odd roots of $\overset{\circ}{\mathfrak{g}}$.
We show the Cayley graphs for three actions of $\mathfrak{T}_{iso}$ are isomorphic.
These actions originate in quite different ways.
The first arises from Young diagrams contained in a rectangle with n rows and m columns, the second from Borel subalgebras of the affinization $\widehat{L}(\overset{\circ}{\mathfrak{g}})$ of $\overset{\circ}{\mathfrak{g}}$ which are related by odd reflections.
The third action comes from an action of $\mathfrak{T}_{iso}$ on $\mathbb{k}^{n|m}$ defined by Sergeev and Veselov motivated by deformed quantum Calogero-Moser problems.

Motivation for Participation

Application for a talk

E-Mail

Special requests and comments

Academic Status

Financial Support

Institution (University)

Topic of your talk

Comments and Suggestions on the Community Agreement

Nationality

Country of Institution

Preferred Name

Gender

Preferred Pronouns

Presenter: MUSSON, Ian