

Link Invariants from Quandle Coloring Quivers Using Combinatorial Laplacians

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Abstract:

In 2018, K. Cho and S. Nelson introduced the “quandle coloring quiver” which is an enhancement of a coloring space. From the perspective of graph isomorphisms, it plays a role as a link invariant. Using the fact that graph invariants of quandle coloring quivers work as link invariants, K. Cho and S. Nelson constructed the in-degree polynomial that comes from the degree centrality of graphs. In this talk, we review other graph invariants that are obtained from the combinatorial Laplacian. We apply them to quandle coloring quivers and observe that they could distinguish quivers when in-degree polynomials could not.