

Representation Theory, Geometry & Combinatorics Seminar

Organizer: Mark Haiman & Kolya Reshetikhin

Wednesday, 4:00–6:00pm, 939 Evans

Sept. 26 **Peter Tingley**, UCB

The crystal commutator and Drinfeld's unitarized R-matrix

Drinfeld defined a unitarized R-matrix for any quantum group $U_q(g)$. This gives a commutator for the category of $U_q(g)$ representations, making it into a coboundary category. Henriques and Kamnitzer defined another commutator which also gives $U_q(g)$ representations the structure of a coboundary category. I will discuss some recent work with Joel Kamnitzer in which we relate these two constructions and explain how the unitarized R -matrix can be used to define the crystal commutator.