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## *Seminar*

### **Annular Link Floer Homology and $\mathfrak{gl}(1|1)$**

*by*

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#### Abstract:

In earlier work by Ellis, Petkova, and Vertesi, tangle Floer bimodules (a combinatorial generalization of link Floer homology) are shown to decategorify to the Reshetikhin–Turaev invariants arising in the representation theory of  $\mathfrak{gl}(1|1)$ . In this talk, we describe how this algebraically gives rise to a  $\mathfrak{gl}(1|1)$  action on annular link Floer homology, viewed as the Hochschild homology—or horizontal trace—of a tangle Floer bimodule. The  $\mathfrak{gl}(1|1)$  action turns out to have an interpretation as a known basepoint action in the holomorphic Floer theory. This is based on joint work in progress with Andy Manion and Ina Petkova.

Date : December 13, 2021(Monday)

Time : 10:00a.m. – 12:00pm (Hong Kong SAR)

Zoom link :

<https://cuhk.zoom.us/j/96182806080?pwd=ZzVZUE0zL0dBeklOKzJrdVFDcnhqUT09>

Meeting ID: 961 8280 6080

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*All are Welcome*