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# Two mathematical applications of little string theory

*Friday 1 July 2016 14:30 (50 minutes)*

I will describe two mathematical applications of little string theory. The first leads to a variant of AGT correspondence that relates q-deformed W-algebra conformal blocks to K-theoretic instanton counting. This correspondence can be proven for any simply laced Lie algebra. The second leads to a variant of quantum Langlands correspondence which relates q-deformed conformal blocks of an affine Lie algebra and a W-algebra, associated to a Langlands dual pair of Lie groups. The proof of the correspondence for simply laced Lie algebras involves, in a crucial way, the recently discovered elliptic stable envelopes.

## Summary

**Presenter:**   AGANAGIC, Mina (UC Berkeley)

**Session Classification:**   Plenary session