

## abstract

SPECIAL LECTURE

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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We construct a weak representation of the category of framed affine tangles on a disjoint union of triangulated categories  $\mathcal{D}_n$ . The categories we use are that of coherent sheaves on Springer fibers over a nilpotent element of  $SL(2n)$  with two equal Jordan blocks. This representation allows us to enumerate the irreducible objects in the heart of the exotic  $t$ -structure on  $\mathcal{D}_n$  by crossingless matchings of  $2n$  points on a circle. We also describe the algebra of endomorphisms of the direct sum of the irreducible objects. This algebra, as conjectured in 2006 by Paul Seidel, can be described as a variant of Khovanov's arc algebra.