

Chern-Simons functional and equivariant instanton Floer theories

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Date & Time: July 10-11 13:15-14:45
July 13-14 10:30-12:00

Venue: To be announced to participants only



Abstract:

The knot signature and more generally the Levine–Tristram signature function provide important classical invariants of knots. The Levine–Tristram signature of a knot can be computed by a signed count of the irreducible $SU(2)$ representations, mod conjugacy, of the knot complement with prescribed meridional traces. This point of view on the Levine–Tristram signature together with the theory of singular instantons can be used to obtain categorifications of Levine–Tristram signature. In fact, such categorifications are one of the various homology theories that is obtained from a more universal object, which is called the singular instanton S -complex of a knot. In this series of talks, I'll discuss the theory of singular instanton S -complexes and some of the additional structures that they admit

(including an unoriented Skein exact triangle and Alexander differential operators associated to Seifert surfaces). I will also discuss some topological applications of singular instanton S -complexes.

要申込：受講希望者は、下記 URL または QR コードから Google フォームにて申込みを行って下さい。

URL : <https://forms.gle/i88K5upSpz2yEHqd8>

締切日：7月6日（木）16時厳守

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ただし、大学院科目として通常の単位に認定されるわけではありませんので注意してください。



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