

Jun Murakami on Logarithmic Invariants of Knots in a 3-Manifold

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1. Coloured Alexander invariant.
2. Log invariant from coloured Alexander invariant.
3. Log invariant from coloured Jones invariant.
4. Log invariants of knots in a 3-manifold.
5. TQFT.

1. Motivation: Understand the Alexander Invariant.

In J_n , the Jones poly in the n -dimensional rep. V_n , put $q = e^{2\pi i/N}$. The result is the "coloured Alexander invt." of Akutsu-Deguchi-Ohtsuki (1992).

1997: Kauffman \rightsquigarrow hyperbolic volume.