

An integer valued $SU(3)$ Casson invariant for homology 3-spheres

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Abstract

This talk will discuss a recently defined $SU(3)$ Casson invariant, defined in joint work with Hans Boden and Paul Kirk. It involves a different correction term than the earlier gauge theory definition (joint with Boden). The new correction term is easier to compute and, best of all, is "nonzero only when absolutely necessary." I'll discuss the invariant's behavior under connected sums and surgeries on torus knots.