Bing doubling and the colored Jones polynomials

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Abstract. The colored Jones polynomial is a quantum invariant associated with the quantized enveloping algebra of the Lie algebra sl2. We are interested in the relationship between topological properties of links and algebraic properties of the colored Jones polynomial. Bing doubling is an operation which gives a satellite of a knot. Habiro defined a certain series of the colored Jones polynomials to construct the unified WRT invariant of 3-manifolds. In this talk, we derive Habiro's colored Jones polynomials of the Bing double of a knot K from these of K. We aim to apply the result to study the unified WRT invariant.