

Mochizuki's quandle 3-cocycles and Inoue-Kabaya chain map

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Abstract. In 2003, T. Mochizuki has determined the third quandle cohomologies of all Alexander quandles X over finite fields; further he listed polynomial-presentations of their basis, as solutions of differential equations. I show that all the Mochizuki's 3-cocycles are derived from certain group 3-cohomologies via Inoue-Kabaya chain map. For example, if X is the dihedral quandle, the Mochizuki's 3-cocycle is deduced with an easy computation.