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Migiwa Sakurai* (migiwa@shibaura-it.ac.jp), 307 Fukasaku, Minuma-ku, Saitama-shi, Saitama 337-8570, Japan, and **Yoshiyuki Ohyama** (ohyama@lab.twcu.ac.jp), 2-6-1, Zempukuji, Suginami-ku, Tokyo 167-8585, Japan. *Virtual knots with properties of Kishino's knot.*

Satoh and Taniguchi defined a virtual knot invariant J_n called the n -writhe for each non-zero integer n . The n -writhes give the coefficients of some polynomial invariants for virtual knots including the index polynomial, the odd writhe polynomial and the affine index polynomial. It is obvious that the virtualization of a real crossing is an unknotting operation for virtual knots. The unknotting number by the virtualization is called the virtual unknotting number. Kishino found a virtual knot with special properties, called Kishino's Knot. Kishino's knot is a virtual unknotting number one knot whose n -writhes, the index polynomial, the odd writhe polynomial, the affine index polynomial, and the Jones polynomial are the same as those of the trivial knot. However, it is not known whether there exist many virtual knots with such properties.

In this talk, we construct infinitely many virtual knots with the same properties as Kishino's knot. By using the Miyazawa polynomial, we showed that these virtual knots are non-trivial and non-classical, and their knot types are all different. (Received February 29, 2020)