

Sophia University

Mathematics Colloquium

When: Friday, April 22, 2016, 17:30-18:30

Where: Room No. 201, Main Bldg., Ichigaya-Campus

Speaker: Kanako Oshiro (Sophia University)

Title: Symmetric quandle cocycle invariants for oriented links

Abstract: A quandle is an algebraic system introduced by D. Joyce and S. Matveev in 1992. There are several studies using quandles in knot theory. Especially quandle cocycle invariants, introduced by J. S. Carter et al. in 2003, are very useful for studies of oriented links and oriented surface-links. Note that in order to define quandle cocycle invariants, it is essential that links or surface-links are oriented. In 2007, S. Kamada introduced symmetric quandle cocycle invariants for links and surface-links. This enabled us to consider quandle cocycle invariants for links or surface-links which are not necessarily oriented or orientable.

In this talk, we show that quandle cocycle invariants are interpreted as symmetric quandle cocycle invariants, which implies that symmetric quandle cocycle invariants are stronger than or equal to quandle cocycle invariants for oriented links.