Infinitely many ribbon disks with the same exterior

Tetsuya Abe
OCAMI

Abstract. A classical Gluck’s theorem states that there exist at most two inequivalent 2-knots with diffeomorphic exteriors. In this talk, we construct infinitely many ribbon disks with the same exterior. First, we give a sufficient condition for a given slice disk to be ribbon. Next, we construct infinitely many slice disks with the same exterior, and prove that these are ribbon. This is a joint work with Motoo Tange. If time permits, we prove that these ribbon disks are mutually distinct by the (overtwisted) contact structures in the 3-sphere.