Destabilized bridge spheres of knots

Kazuto Takao

Hiroshima University

Abstract. Any knot admits infinitely many bridge spheres, and to classify them is a general problem. Destabilized bridge spheres are of particular interest because all the other can be obtained from them by stabilizations up to isotopy. In this talk, we introduce a criterion which guarantees a bridge sphere to be destabilized, and give a knot which has destabilized bridge spheres of bridge number arbitrarily higher than the bridge number of the knot. This is a joint work with Yeonhee Jang, Tsuyoshi Kobayashi and Makoto Ozawa.