

A polynomial-time solution to the reducibility problem

KI HYOUNG KO

We propose an algorithm for deciding whether a given braid is pseudo-Anosov, reducible, or periodic. The algorithm is based on Garside's weighted decomposition and is polynomial-time in the word-length of an input braid. Moreover, a reduction system of circles can be found completely if the input is a certain type of reducible braids.

KAIST