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Mehmet E Aktas* (maktas@math.fsu.edu), 1234 Continental Ct., Tallahassee, FL 32304. *A polynomial invariant for plane curve complements: Krammer polynomials.*

A. Libgober defined an invariant of plane algebraic curves via representations of the braid groups and also showed that this invariant coincides with the Alexander polynomial when one uses the Burau representation. In this paper, we construct a new polynomial invariant of plane algebraic curves using the Krammer representation of the braid groups in Libgober's invariant, called the Krammer Polynomial. We also find the local and global Krammer polynomials of n -gonal curves in some special cases. (Received September 08, 2016)