

Oriented area is a perfect Morse function

Gaiane Panina

Abstract. We show that an appropriate generalization of the oriented area function is a perfect Morse function on the space of three-dimensional configurations of an equilateral polygonal linkage with odd number of edges. Therefore cyclic equilateral polygons (which appear as critical Morse points) are interpreted as independent generators of the homology groups of the (decorated) configuration space.

Gaiane Panina
SPIIRAS,
St. Petersburg State University
Russia
e-mail: gaiane-panina@rambler.ru