

Michael Shapiro (Michigan State)

Pentagram map and cluster algebra

Abstract: Pentagram map takes a convex polygon to a polygon formed by its short diagonal. As shown by Schwartz, Ovsienko, Tabachnikov, and Khesin and Soloviev, pentagram map is completely integrable. We discuss generalization of pentagram map from the point of view of cluster algebra theory and prove complete integrability. This is a joint work with M.Gekhtman, S.Tabachnikov, and A.Vainshtein.