

Pentagram Maps and Refactorization in Poisson-Lie Groups

Anton Izosimov
University of Arizona

Abstract

The pentagram map was introduced by Richard Schwartz in 1992, and is now one of the most renowned discrete integrable systems which has deep connections with such topics as cluster algebras, dimer models etc. In this talk I will present a geometric construction which identifies the pentagram map, as well as its various multidimensional generalisations, with refactorization-type mappings in Poisson-Lie groups.