



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Seminar in Geometry and Topology

Room 155 ,Ziskind Building  
on Monday, Dec 30, 2019  
at 09:15

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Cross-ratio dynamics on ideal polygons

Abstract:

Define a relation between labeled ideal polygons in the hyperbolic space by requiring that the complex distances (a combination of the distance and the angle) between their respective sides equal  $c$ ; the complex number  $c$  is a parameter of the relation. This defines a 1-parameter family of maps on the moduli space of ideal polygons in the hyperbolic space (or, in its real version, in the hyperbolic plane). I shall discuss complete integrability of this family of maps and mention related topics, including Coxeter's frieze patterns and elements of the theory of cluster algebras