IVA HALACHEVA, Northeastern University
Bethe subalgebras of the Yangian Y(gl(n)), tame representations, and Gelfand-Tsetlin patterns

The Bethe subalgebras of the Yangian Y(gl(n)) form a family of maximal commutative subalgebras indexed by points of the Deligne-Mumford compactification of the moduli space M(0,n+2). When considering a point C in the real locus of this parameter space, the corresponding Bethe subalgebra B(C) acts with simple spectrum on a given tame representation of Y(gl(n)). This results in an unramified covering, whose fiber over C is the set of eigenlines for the action of B(C). I will discuss the identification of each fiber with a collection of Gelfand-Tsetlin keystone patterns, which carry a gl(n)-crystal structure, as well as the monodromy action realized by a type of cactus group. This is joint work with Anfisa Gurenkova and Leonid Rybnikov.