

1067-S1-1691      **Vladimir L Bulatov\*** ([vladimir@bulatov.org](mailto:vladimir@bulatov.org)), 2970 Christine Street, Corvallis, OR 97330.  
*Tilings of hyperbolic space and their visualization.* Preliminary report.

Visual representation of tiling of 3D hyperbolic space attracted very little attention compare to tilings of hyperbolic plane, which were popularized by M.C.Escher circle limit woodcuts. Although there is a lot of activity on theoretical side of the problem starting from work of H.Poincare on Kleinian groups and continuing with breakthrough of W.Thurston in the development of low dimensional topology and G.Perelman's proof of Poincare conjecture.

The book "Indra's Pearl" have popularized visualization of 2D limit set of Kleinian groups, which is located at the infinity of hyperbolic space. In this talk we present our attempts to build and visualize actual 3D tilings. We study tilings with symmetry group generated by reflections in the faces of Coxeter polyhedron, which also is the fundamental polyhedron of the group. Tiling based on Coxeter polyhedra with up to 8 faces are constructed. The text of the talk is available at <http://bulatov.org/math/1101/> (Received September 21, 2010)