

1125-05-2585 **Bruno Benedetti*** (bruno@math.miami.edu), Department of Mathematics, 1365 Memorial Drive, Coral Gables, FL 33146. *Local constructions of manifolds*. Preliminary report.

As kids we learned a trick to make paper dices. First we drew a tree of squares; from that, we started to recursively glue together two incident boundary edges; we stopped when all boundary edges had been matched. This idea applies to all dimensions. For example, in dimension three, let us call "Mogami" all triangulated 3-manifolds that can be obtained from a "tree of tetrahedra" (i.e. a triangulation of the 3-ball whose dual graph is a tree), by recursively gluing together two incident boundary triangles. Are all triangulations of the 3-ball Mogami? Or are there some that cannot be obtained this way? (The name is after the physicist who introduced this model in discrete quantum gravity, for asymptotic enumeration purposes; so if not all 3-balls are Mogami, it would be interesting to estimate how many are not...) (Received September 20, 2016)