

A new combinatorial class of triangulations

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I will talk about a new combinatorial class of triangulations of closed 3-manifolds, which satisfies a weak version of 0-efficiency combined with a weak version of minimality. The definition is motivated by key combinatorial properties of the 2-skeleton of minimal or 0-efficient triangulations.

As an application, strong restrictions on the topology of a 3-manifold are obtained from the existence of non-smooth maxima of the volume function on the space of circle-valued angle structures. This is joint work with Feng Luo.