

COMBINATORICS
JOB TALK

Minimal triangulations of manifolds

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Abstract: Multiple results on face-vectors (numbers of faces of all dimension) of polytopes can be generalized to triangulated manifolds. They give good bounds on the number of facets. To the contrary, very little is known about the number of vertices in manifolds triangulations. I will describe how methods from combinatorics, topology, and metric geometry can tackle this problem yielding both new lower and upper bounds. Our go-to examples are going to be the n -dimensional real projective space and the n -dimensional torus.

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Mathematics and Science Center: MSC W301

MATHEMATICS
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