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M Werner**. *The convex hull of random points on the boundary of a simple polytope.*

The convex hull of N independent random points chosen on the boundary of a simple polytope in \mathbb{R}^n is investigated. Asymptotic formulas for the expected number of vertices and facets, and for the expectation of the volume difference are derived. This is the first successful attempt of investigations which lead to rigorous results for random polytopes which are neither simple nor simplicial. The results contrast existing results when points are chosen in the interior of a convex set. (Received January 10, 2020)