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The distribution of the number of nodes in the relative interior of the typical I-segment in homogeneous planar anisotropic STIT Tessellations

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Abstract: A result about the distribution of the number of nodes in the relative interior of the typical I-segment in homogeneous and isotropic random tessellations stable under iteration (STIT tessellations) is extended to the anisotropic case using recent findings from Schreiber/Thäle, *Typical geometry, second-order properties and central limit theory for iteration stable tessellations*, arXiv:1001.0990 [math.PR] (2010). Moreover a new expression for the values of this probability distribution is presented in terms of the Gauss hypergeometric function ${}_2F_1$.

Keywords: hypergeometric function, iteration/nesting, random tessellation, segments, stochastic geometry, stochastic stability

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