

**On Gauss–Kuzmin statistics and the transfer operator  
for a multidimensional continued fraction algorithm:  
the triangle map**

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**Abstract.** The Gauss–Kuzmin statistics for the triangle map (a type of multidimensional continued fraction algorithm) are derived by examining the leading eigenfunction of the triangle map’s transfer operator. The technical difficulty is finding the appropriate Banach space of functions. We also show that, by thinking of the triangle map’s transfer operator as acting on a one-dimensional family of Hilbert spaces, the transfer can be thought of as a family of nuclear operators of trace class zero.

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