

Applications of some of your amazing formulas in statistics

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Classical orthogonal polynomials (in one and several variables) admit elegant summation formulas. These turn out to be just what the doctor ordered in a variety of problems in applied probability and statistics. They give new goodness of fit tests for testing things like "does random matrix theory really fit the zero's of the zeta function?" They allow sharp rates of convergence for many examples of statisticians Gibbs sampling algorithms. Of course, real applications lead to new questions.