Finding SU(1,1) interferometry where you didn't expect to

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Abstract

SU(1,1) interferometry is a way to take advantage of the reduced noise or the correlations available from two-mode squeezed states. I will review the use of the reduced noise for high-precision measurements and then will discuss the use of the correlations in two scenarios not usually thought of in terms of SU(1,1) interferometry: quantum illumination and characterization of the linear-optical network in randomized boson sampling.