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Determination of correlation functions from experimental measurements[1] FRED SKIFF, SEAN MATTINGLY, Department of Physics and Astronomy University of Iowa — We look at the problem of comparing theory and experiment with phase-space resolved correlation functions <f(x,v,t)f(x',v',t')>. The first problem is extracting the correlations from the measurements. We will outline two approaches; the first involves suppressing photon statistics fluctuations by averaging and the second involves extracting the correlations from the PDFs of the photon statistics themselves. Secondly there is the problem that the theoretical expressions are expressed in transform space and the measurements are made at discrete times and locations with finite experimental precision. We will outline the range accessible to the current measurement techniques.

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