Supplemental Material for: Static Charge Density Wave Order in the Superconducting State of $La_{2-x}Ba_xCuO_4$

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Here we present additional information regarding the origin of the drop in the speckle contrast factor β with increasing temperature seen in Fig. 5 of the main text. This decrease can in principle arise from fast CDW fluctuations, but β is also proportional to $r^2(T)$, where $r(T)$ is the ratio of peak intensity to total (peak plus background) intensity [1]. Figure 1 shows that the changes in $\sqrt{\beta}$ are indeed roughly proportional to $r(T)$. The drop in β is therefore assigned to changes in the peak to background ratio and not to fast CDW dynamics.

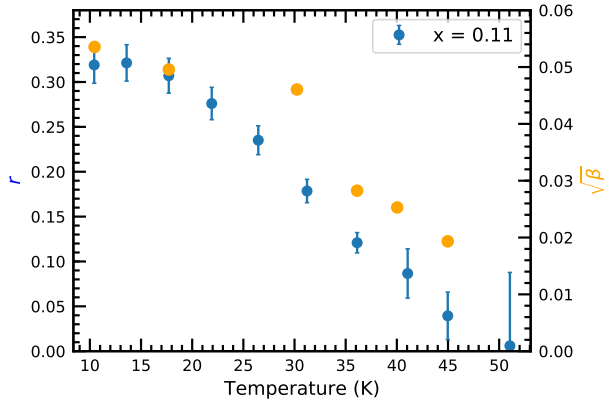

FIG. 1. A scaling plot showing that the square root of the speckle contrast factor, β, is roughly proportional to the ratio of the peak intensity to the total (peak plus background) intensity $r(T)$.

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