



FIG. 1. Scattering rate as a function of temperature on a logarithmic scale for different regimes displaying T -linear scattering rate. The different colors refer to different patches.

Report 2

Major concern: 1. Please provide further clarification on their motivation for choosing this particular model with anisotropic hopping parameters.

Since we used that $|t| = |t'| = 1$, our model is identical to the isotropic triangular lattice with first neighbor hopping. The doping was changed using the chemical potential, not the hopping term. The negative sign of t' , analogous to the cuprate case, allows chemical potential less than the value at half-filling to correspond to hole doping.

2. Concerning the phase diagram, the region claimed to exhibit T -linear behavior seems too broad, and the evaluation of the boundary is unclear, particularly around $T = 0.08$. The manuscript states, “There is a slight deviation from the T -linear regime seen in Fig. 2a) for $T = 0.08$. The raw data for the scattering rate at $p=0.06$ in Fig.3 shows that this deviation from T -linearity is barely noticeable (at page 4, right column).” However, this deviation is not easily discernible, potentially due to the relatively small size of the figure and the fact that it is not plotted on a logarithmic scale, which may obscure deviations from T -linearity. To address this concern and clarify the observations, it would be prudent to include a version of Fig. 3 plotted on a logarithmic scale. Additionally it would be helpful how authors determined the boundary of T -linearity in the phase diagram.

A figure of the scattering rate as a function of temperature in log scale was added at Fig. 17 to appendix E to better illustrate the deviation from T -linearity.

Concerning the boundary of the T -linear regime delimited by dotted lines in Fig. 3, these T -linear regions are approximate, and serve as a guide for the eye, a comment we added in the caption of Fig. 2.

Minor concern: Contents-Related Concerns

1. The explanations for \tilde{K} and the six patches K_i are insufficient. An explanation should be added at the end of the first paragraph in Section IIB, where Fig. 1b is mentioned, to enhance readability for the reader.

A better explanation for patches K_i was added to the text in section II.B. We hope that this will improve the clarity of the text.

This means that observables on a given patch \mathbf{K}_i are obtained with the following equation

$$\mathcal{O}(\mathbf{K}_i) = \frac{1}{N} \sum_j \mathcal{O}(\tilde{\mathbf{k}}_j) \quad (1)$$

where $\tilde{\mathbf{k}}_j$ are the wave vectors inside the patch \mathbf{K}_i and N is the number of $\tilde{\mathbf{k}}_j$ inside the patch

2. Regarding “For this reason, we limit ourselves to T lower than 0.2” on page 3 right column. It is not very clear since the energy unit is not clearly defined.

In at the end of the first paragraph of section II-A, we specify that we work in units where $\hbar = k_B = t = 1$.

3. To facilitate a clearer understanding of the manuscript, I recommend that the hole doping parameters p and x be thoroughly defined and explained prior to Sec. III. This would ensure that readers have a solid grasp of these key concepts before delving into the subsequent analysis and discussion.

The following explanation of the electron-doped side in this research was added at the end of section II.A. We hope that this will improve the readability of the manuscript.

The band parameters are the same for both hole-doping (denoted by p) and electron-doping (denoted by x) with respect to half-filling. Doping is controlled by the chemical potential. We focus mostly hole doping.

[Typesetting and Formatting Concerns]

4a. In the first paragraph of Sec. IIC, “he” should be corrected to “the”. 4b. Please modify a reference error on page 4 in the right column where “Table II C” is mentioned; it should instead refer to “Table I”.

Thank you for pointing this error out. We modified our reference so that it refers to Table I. Thank you for the useful suggestions.