Secondly, as the authors have mentioned, the BKT transition is characterized by the unbinding of topological defects such as magnetic vortices. In monolayer material, the use of terms such as magnons and local zigzag-AFM alignment may cause confusion for readers. Please, elaborate on this point.

Reply: We thank the referee for providing valuable comments and concerns that can help us greatly improve our manuscript. We would like to clarify that the magnons and the topological defects in the zigzag AFM background are distinct excitations. Specifically, magnon is some spin wave collective excitations and always present in the magnetic materials. They have well-defined dispersion and can be directly detected by various experimental methods. The Raman spectrum in our work was used to characterize the density of state of the magnons. While topological defects, which manifest as magnetic vortices, only appears in XY-type magnetic materials, namely, in symmetric or emergent symmetric systems. In the simplest XY model, the topological defects are characterized by their inability to be continuously deform to a uniformly ordered configuration without topological defects. The proliferation of topological defects as temperature increases leads to the BKT transition. In an AFM background, in order to visualize the topological defects configurations, the spin degree freedom in XY model should be understood as the local order parameters in AFM. Another straightforward way to visualize the topological excitation in zigzag-AFM alignment is to discard one of the zig-zag sublattices and concentrate on the spin configuration of the remaining sublattices. We have also revised our main text in accordance with the referee’s comments.