## 奇异因子曲线

2022年5月16日

## 1 全部图结果

计算所有图贡献的结果,和之前采取的格点结果对比起来,偏差比较大。

首先是中子的 GE 曲线图:

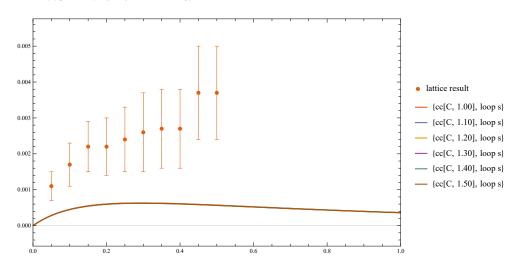


图 1: Λ=0.7

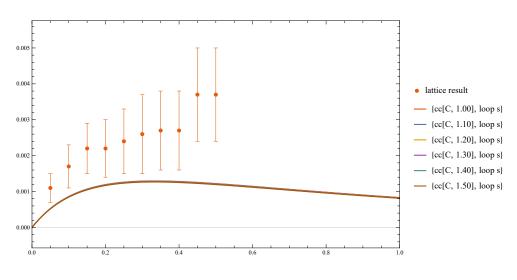


图 2:  $\Lambda$ =0.75

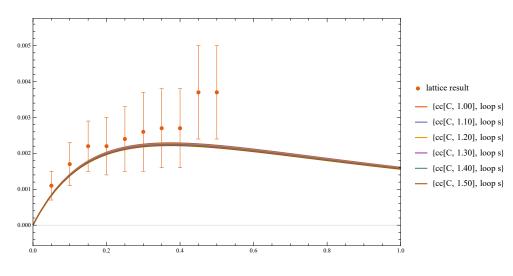


图 3: 入=0.8

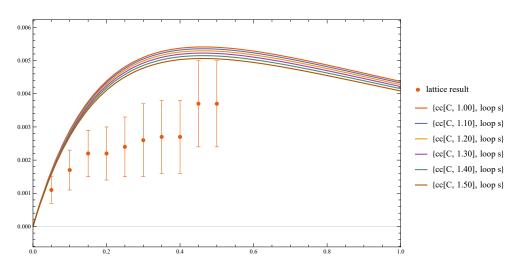


图 4: Λ=0.9

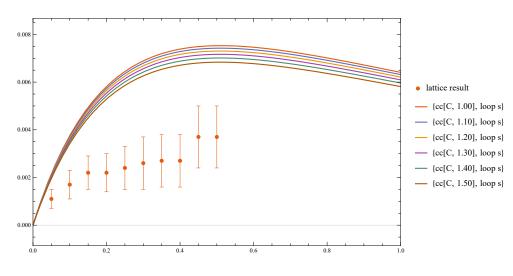


图 5: Λ=0.95

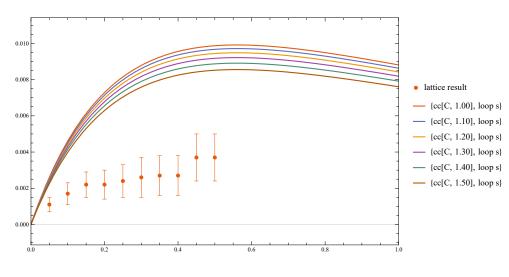


图 6:  $\Lambda=1.0$ 

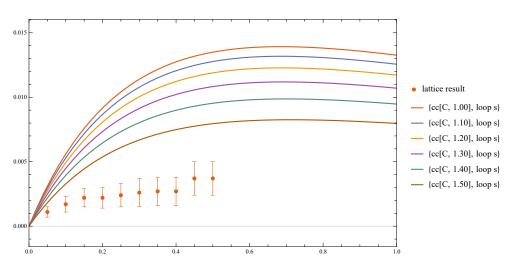


图 7:  $\Lambda=1.1$ 

这里在  $\Lambda$  取 0.8 的时候,GE 的奇异形状因子结果比较好。 下面是中子的 GM 奇异因子曲线:

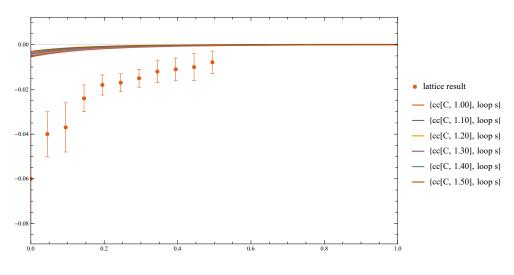


图 8: Λ=0.7

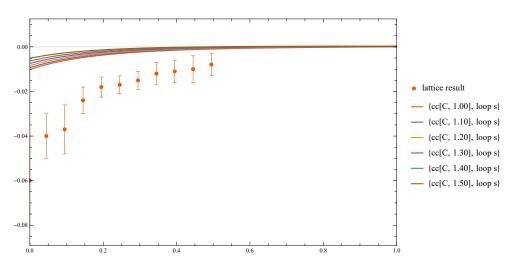


图 9: Λ=0.75

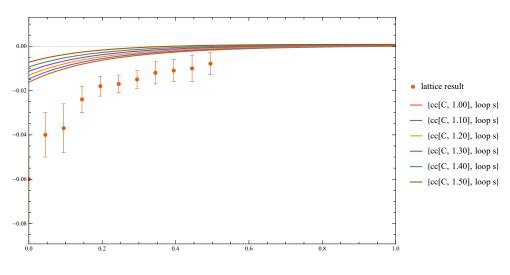


图 10: Λ=0.8

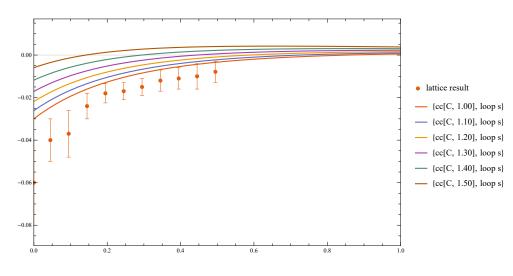


图 11: Λ=0.9

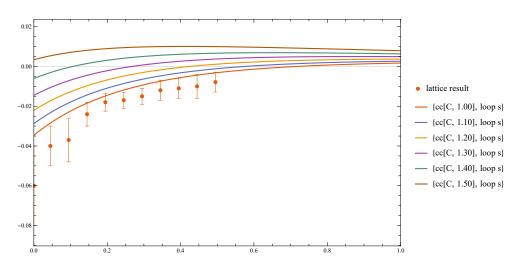


图 12: Λ=0.95

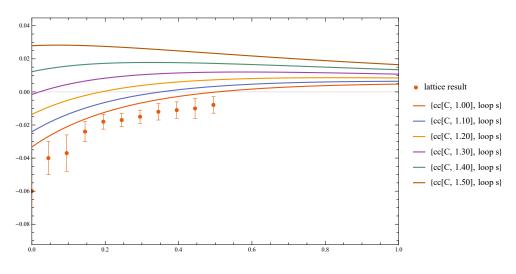
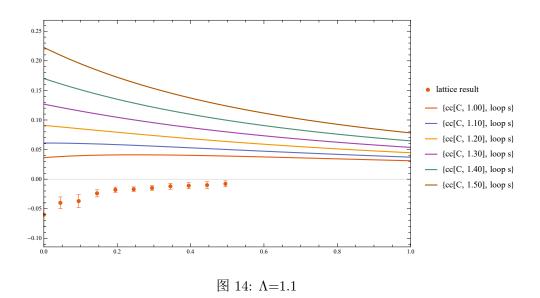


图 13: Λ=1.0



对于 GM 曲线,相对而言就没有那么贴合的结果了。

## 2 不考虑 bubble 的结果

目前能够画出上述曲线在不计算 bubble 图的贡献情况下的对应结果,整体上和格点结果更接近一些。

对应的, 先是 GE 曲线:

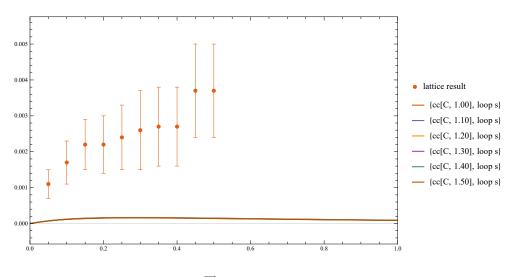


图 15: Λ=0.7

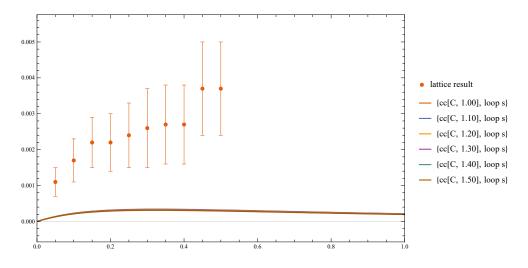


图 16: Λ=0.75

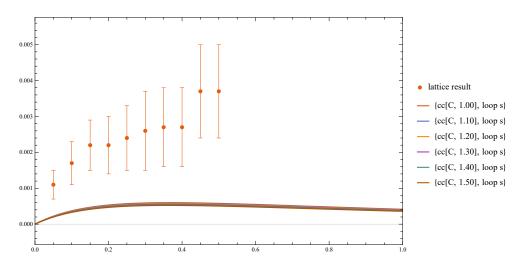


图 17: Λ=0.8

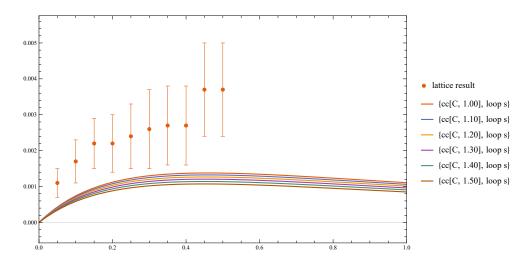


图 18: Λ=0.9

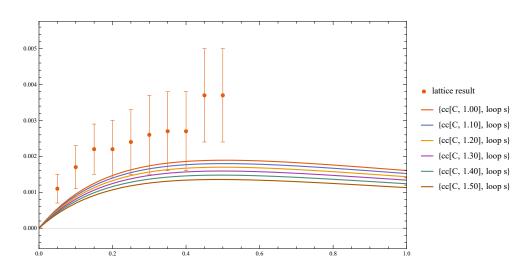


图 19: Λ=0.95

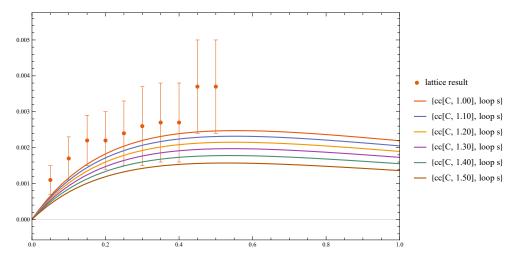


图 20: Λ=1.0

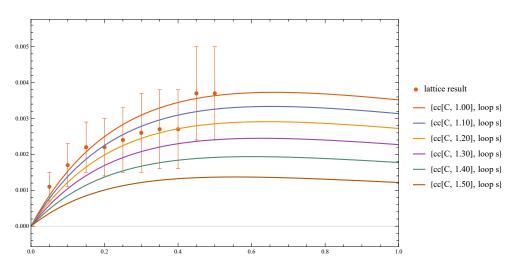


图 21: Λ=1.1

显然这里随着  $\Lambda$  变大,结果更贴近。 然后是 GM 曲线:

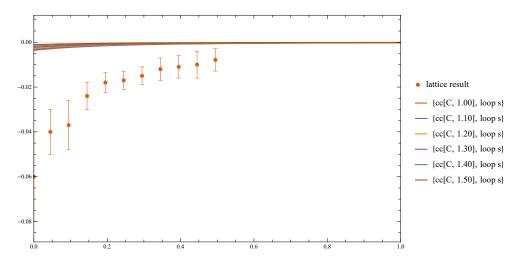


图 22: Λ=0.7

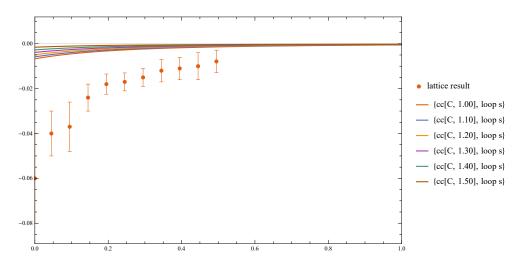


图 23:  $\Lambda$ =0.75

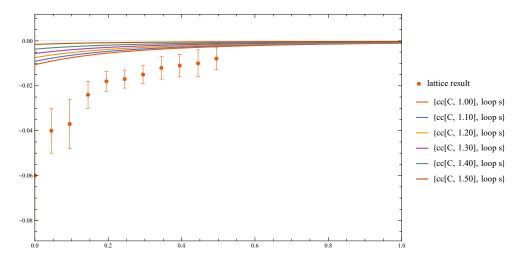


图 24: Λ=0.8

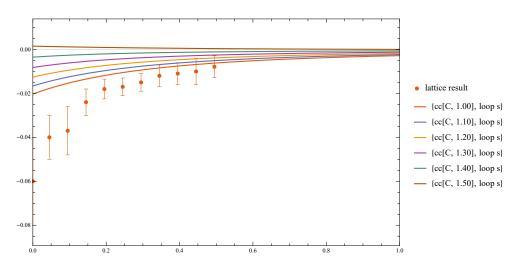


图 25: Λ=0.9

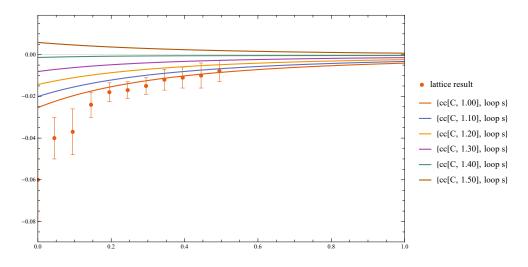


图 26:  $\Lambda$ =0.95

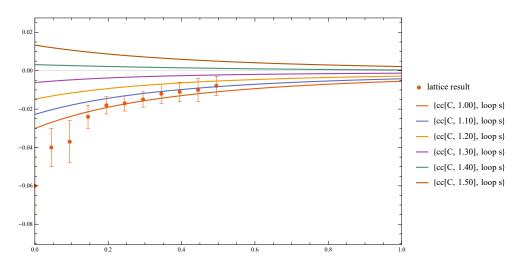
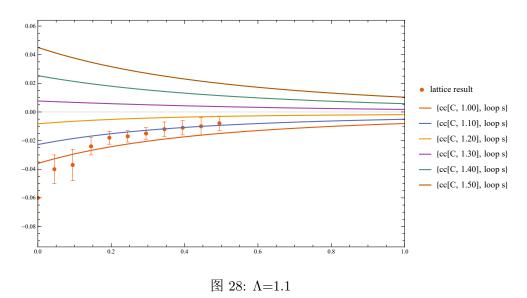


图 27: Λ=1.0



对于 GM 曲线, 在考虑和不考虑 bubble 的之间, 曲线本身的随  $\Lambda$  变 化的规律比较接近,但不考虑 bubble 图的情况最后会更接近格点结果。