## 1)Comparison

For Decompose Dish, there are 2 versions:

- 1)Decompose Multiple Restaurants(serving dish k) and then Decide to accept or not.
- 2)Decide to accept/reject(annealed) for each restaurant and merge the tables left in dish k.

## Set Up:

- 1)5 by 5 words,10 real bars
- 2)40 Restaurants, each has 50 customers.
- 3) Annealing Scheme: Five Temperature  $T \in [0.2, 0.4, 0.6, 0.8, 1]^{(0.5)}$
- 4) Using annealed Accept/Reject:  $\boldsymbol{L}' \!=\! \mathbf{T}^* \mathbf{t}\text{-term} \!+\! \mathbf{k}\text{-term}$

Figures on the next page:(left)Scheme 1,(right)Scheme 2,

In General, the config on the right(Scheme2) is better than that on the left(Scheme1). Figure 3 shows the best config

Scheme2 is even better than the approximated ground truth with 10 bars

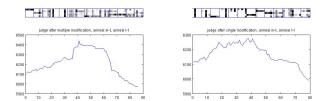


Figure 1: Annealed Merge-table and Annealed Local-table

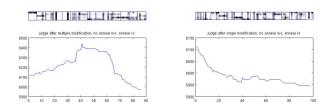


Figure 2: Not Annealed Merge-table and Annealed Local-table

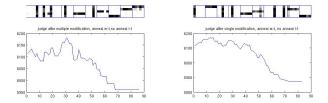


Figure 3: Annealed Merge-table and Not Annealed Local-table

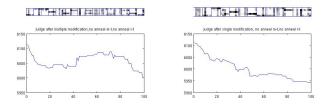


Figure 4: Not Annealed Merge-table and Not Annealed Local-table