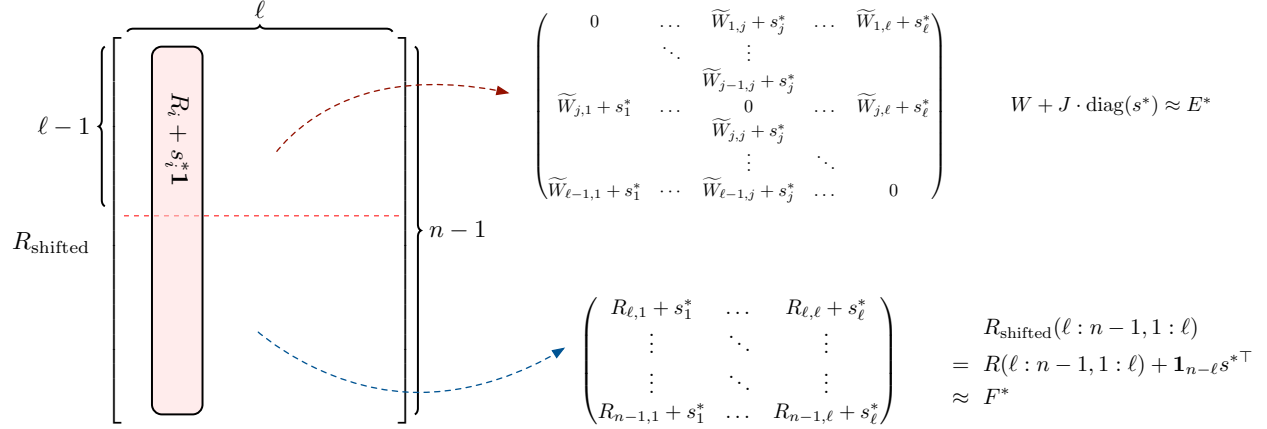


1 We thank the reviewers for their valuable suggestions. Please find our answers (**A**) for each reviewer (**R**) below.

2 **R1, R2: Clarity and technical explanations**

3 **A:** In order to improve the clarity of the technical discussion in section 4, the final version will include: a more
 4 detailed high-level overview at the beginning, more English explanations of mathematical expressions (esp. in the last
 5 subsection), and another figure similar to Figure 1 illustrating the algorithm (see below).



6 **R3: Generalization of the “shift idea” to other preference models**

7 **A:** The “shift idea” relies on estimating the difference of distances $D_{ij} - D_{ik}$. This determines the distances up to
 8 some constant shift, so we estimate the proper shifts in order to recover the distances. This idea can be applied to any
 9 linear triplet model which says j is farther from i than k with probability $P_{ijk} = F(D_{ij} - D_{ik})$, where F is the CDF
 10 of some 0 symmetric random variable. If we can estimate the difference of distances then the rest of the algorithm
 11 carries through. The two most common models of this form (see [1]) are the BTL model (F is the logistic CDF) and the
 12 Thurstone model (F is the normal CDF). In future work, it may be possible to extend these general landmark techniques
 13 to more structured embedding settings such as in [2].

14 References

- 15 [1] Manuela Cattelan. Models for paired comparison data: A review with emphasis on dependent data. *Statistical*
 16 *Science*, pages 412–433, 2012.
- 17 [2] Shuo Chen, Josh L Moore, Douglas Turnbull, and Thorsten Joachims. Playlist prediction via metric embedding. In
 18 *Proceedings of the 18th ACM SIGKDD international conference on Knowledge discovery and data mining*, pages
 19 714–722. ACM, 2012.