Review of: "Distributional Matrix Completion via Nearest Neighbors in the Wasserstein Space"

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Potential competing interests: No potential competing interests to declare.

The paper approaches the problem of distributional matrix completion: a clear motivation is presented, as well as a nearest neighbor solution inspired by scalar matrix completion. A complete theoretical analysis of this new method is provided, and numerical experiments corroborate its effectiveness. The illustrations in the paper are of high quality and help the reader understand the technique. The authors share a GitHub repository with the source code.

In my opinion, the only weakness of the paper is the lack of real examples. While I understand that the simulation results in Section 5 serve as support for the theoretical developments in the previous sections, it is a bit disappointing that after such good motivation in Section 1 (student test scores), no real example is shown. I don't know if data is available for this kind of test, but there should be at least some comment on why the paper does not apply the proposed method to any real example.

Other minor points:

- Section 2.1: I'd like to see some elaboration on "However, our algorithm and theoretical guarantees can easily generalize to unequally sized arrays within columns.".
- Section 4.2: The sentence "We provide a proof of this theorem in" is incomplete.
- Section 4.2: "pointwide" —> "pointwise".