

task set for Shinjuku project

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1 Shinjuku

The “shinjuku” paper, if ever done, will be an extension of the sendai paper. The naming of papers is pretty much random but always uses a city name. The paper would be short, and the extension straightforward.

Let me know if you find any mistakes. I plan to send the paper by early September, so that I could incorporate any comments of yours.

Sendai introduces concept of the natural order, and some desirable properties that measures that appreciate outcomes have. One of these properties, that is not announced from the start but developed in the paper is the respect for the natural order. I construct the ponori and copnori measures as purpose build “nori”s, i.e. natural order imposition measures. Outcomes ranked by these measure are in the natural order.

Let us focus on copnori. The problem with the measure is described in the test section. It’s root is the constant nature of the additional penalty. The best outcome gets penalty 0, the second best 1, the third best 2 etc. Thus the additional penalty is 1. What it would need to be, is to increase (I think) as the go down. This wolud means that as we move away from the optimal outcome, we would initially loose very heavily, thus the dispersion of outcomes as the beginning would be better. Thus the additional penalty, rather than being $o(x)$, say where o is the position of x in the natural order, it would be $f(o(x))$ where $f(\cdot)$ declines as x incresase.

Finding a replacement of the copnori is the first stage in Shinjuku. The second, and possibly more trivial stage, is to unit this with the Aselt measure as the $\nu l(x) + (1-\nu) k(x)$ formula suggests. If we call b , say, this comBined expression, we could require that $b(x_w) = -1$. This addition requirment may be useful to fix some parameter values that otherwise could be chosen arbitrarily.

2 Other work

As mentioned in sendai, one could work an another version of this paper that would really develop a full-blown loss function and chown that, if editors make optimal decisions, they will value the results of the system as suggested by the natural order. But such a calculation would not be part of shinjuku.