**Brain-Mover’s Distance: Documentation**

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things to document:

[ ] replicability workflow (README)

[ ] RSA workflow (README)

[ ] calculating distances among voxels

[ ] meta-voxelizing:

% WD is really computationally-intensive to calculate over large samples,

% so down-sample the original (3mm x 3mm x 3mm) voxels into "meta-voxels,"

% where each meta-voxel is 2x2x2 original voxels. Only have to do this once

% per analysis.

% NB: we won't necessarily have data for every original voxel within a

% meta-voxel, because we're only using data from reliable voxels. This

% isn't a problem -- they'll just be weighted a little less, which they

% should be since they're contributing less data.

[ ] what’s the constraint matrix?

% specify some of the model components, using a sparse network that

% specifies the meaningful voxel-pairs to consider transforming

% activation patterns between. Also only do this once per analysis

[ ] normalization

% - wasserstein distances can only be calculated over positive values -->

% shift everything to be >=0

% - need equal "mass" for the 2 activation maps being compared --> normalize to [0, 1]

[ ] down-sampling

[ ] Wasserstein / gurobi optimizer