Meeting 21

Discussed SEM. NOTEARS seems very slow, can we improve this, stop earlier? Gradient computing takes the longest time. As p increases, OMP seems to be getting “better”, but could this be simply because the number of edges is p? What if we change it to 2p, or p(p – 1) / 16 (the DAG is one eight dense)?

Evolve the regularization approaches more.

The nine methods, not very much to add, they seem comparable, LINGNAM more naïve, OLS and OMP differ only slightly, projection onto residual or not. If there is no model mismatch, not much difference. OMP will be much faster.

Ballpark of regularization parameter, e.g. c \* log(s / p^2).

Twitter data, see if we can make anything useful out of that.

Make proposal, 2 hours.