Results of play work with NBS / Lecture 4 pre-assignment
Vesa Vahermaa

I started to play around with NBS, installing & running it for the first time and generating the schizophrenia example network. I played around with the threshold, putting a value as low as 2.3 to see how dense the significant network would be with such a low threshold – and indeed, the result did not look that useful.

I tried testing for an increase in connectivity in the schizophrenia example – with a threshold of 2.3. As was described in the paper, the window failed to open: no significant network exhibiting increased connectivity was found in the sample.

I then tried testing for intensity, and was surprised why the window wouldn't open. Then I realized that I had still set the contrast as it was in the previous assignment – and fixing it back to [-1,1] did the trick. Also, the threshold needed to be tuned up again – with 3.0, the results seemed quite manageable. Of course, I don't yet fully know how to interpret them, but as they say: all in good time.

The tutorial said that the p-value becomes larger when size is measured with extent, but the difference seemed very small: only 0.002 with a threshold of 3. The value rose from 0.041 to 0.043.

With the FDR method, no significant result was found with 50.000 permutations.