

MS1-1: Analyzing bigger networks with polynomial algebra

Ian Dinwoodie¹

¹*Department of Mathematics and Statistics, Portland State University, Portland, OR 97201*

`ihd@pdx.edu`

Dynamic network models in biology are getting larger, with node counts over 50 for some examples. The size of the state space grows exponentially with the number of nodes, and this fact limits analytical methods that work directly with elements of the state space. But we show with examples that network analysis using polynomial algebra is not always hampered in the same way by big state spaces.