

“Another roof, another proof.” – Paul Erdős

The Trivial Notions Seminar  
Proudly Announces

Optimal end-game strategy for Dots and Boxes. Also, the number of labelled  $r$ -regular graphs is asymptotically

$$\sqrt{2}e^{-(r^2-1)/4} \left( \frac{r^{r/2}}{e^{r/2}r!} \right)^n n^{rn/2}.$$

A talk by

Hunter Spink

**Abstract**

Dots and Boxes is a children’s game where we alternate drawing line segments in a finite rectangular grid of points. Every time a square is made, the player writes their initial in the square and makes another move, and whoever ends up with the most squares wins. Hopefully I can teach you (and myself before I have to give the talk), the optimal “end-game” strategy, where the board has been reduced to paths and cycles. If we have time, I will also show the number of labelled  $r$ -regular graphs is asymptotically  $\sqrt{2}e^{-(r^2-1)/4} \left( \frac{r^{r/2}}{e^{r/2}r!} \right)^n n^{rn/2}$ .

Thursday April 13<sup>th</sup>, at 12:00 pm  
Science Center 232