

Michigan Math Club

Thursday at 4pm in the Nesbitt Room

Free Pizza and Pop

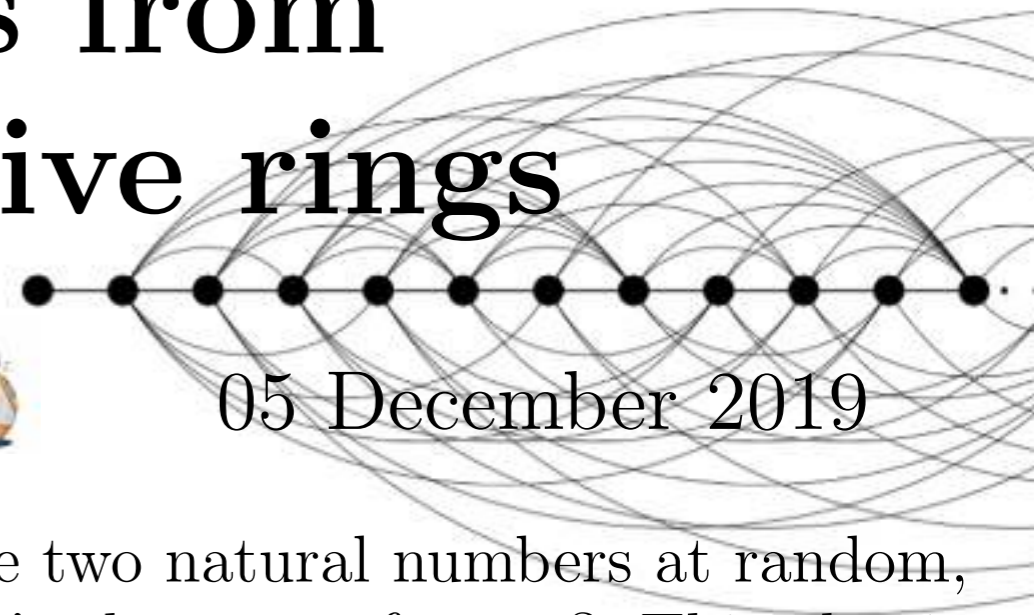


Graphs from commutative rings

Jonathan Gerhard



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We start with a question: If we choose two natural numbers at random, what is the probability that they don't share any factors? This classic (and slightly ill-posed) question has been investigated in many different ways, but we use it as a jumping point to an interesting connection between ring theory and graph theory. In 1988, Istvan Beck wrote a paper called *Coloring of Commutative Rings* and with a single fantastic pun, set in motion an avalanche of research on graphs from commutative rings. We celebrate the last math club of the semester by exploring some of the interesting results arising from this relatively young research area. **Note: students do not need to know what a commutative ring is to attend this talk.**

