

Department of Mathematics and Statistics Colloquium

Arithmetic Statistics: Data and Dreams

Jeff Achter

Colorado State University

Abstract: The set of prime numbers behaves like the outcome of a random process, even though there's nothing random about it at all. Similarly, a set of polynomial equations assigns to each prime a "point count"; the regularities and variations in this point count function are a central concern of arithmetic statistics. I'll describe how a combination of experiment and heuristic gives rise to beautiful conjectures (some settled, some open).

Monday, November 7 at 3:45 in Roop 103

refreshments at 3:30