

## Department of Mathematics and Statistics Colloquium

### *So You Think You Can Extract Roots?*

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Abstract: The most important operation after elementary arithmetic, extracting square roots has a long and distinguished history. Here we shall see how square roots have been calculated from the ancient world through to subtle aspects required on modern computers. Geometry, iteration, the binomial series, digit by digit approaches and more have been used through the ages.

Perhaps not surprisingly, this colloquium will be accessible to anyone who can follow elementary arithmetic, with a tiny amount of calculus to justify one approach to Newtons method.

**Monday, September 5 at 3:45 in Roop 103**

**refreshments at 3:30**