

CCSU  
DEPARTMENT OF MATHEMATICAL SCIENCES  
COLLOQUIUM

Friday, March 11  
2:00 – 3:00 PM  
Maria Sanford, Room 101

**FUN WITH NUMBERS**

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**Abstract:** Consider the following mathematical trivia. First, in 1966 Lander and Parkin discovered that  $27^5 + 84^5 + 110^5 + 133^5 = 144^5$ . Second, in 2013 Tokicki et al proved that the diameter of the Rubik's cube group is 20. Third, Bhargava proved both John Horton Conway's 15-Theorem – *A positive-definite integer-matrix quadratic form is universal iff it represents the numbers 1, 2, 3, 5, 6, 7, 10, 14, 15* – and his conjectured 290-Theorem (in 2000 and 2005, respectively). This talk discusses these and many more results that involve explicit, specific numbers and have a recreational mathematical flavor.

**For further information:**

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