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"Marching Bands, Prime Numbers, and Sieves: Sometimes Imprecision Wins"

Monday, April 9, 2018

Talk at 4:00 – Park 338 Tea at 3:30 – Park 339, Math/Physics Lounge

Abstract:

Imagine you have been selected to adjudicate a marching band contest. On the first day, you decide to listen only to the clarinet section of each band: if they play out of tune, you throw the band out; if they play in tune, you give the band a medal. On the second day, you decide this isn't a good method. Instead, you decide that if at least half the band plays out of tune, you throw the band out; otherwise, you give the band a medal. On the third day, it's suggested that you find an alternative career.

Luckily, it turns out that a very old math problem will benefit from your strategies. Prime numbers will be our clarinets, and we'll see class numbers, number fields, and sieves as well.

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