What's a Random Walk?

The easiest way to think about it is to think about flipping a quarter over and over again. The number of heads minus the number of tails you've seen is your random walk!
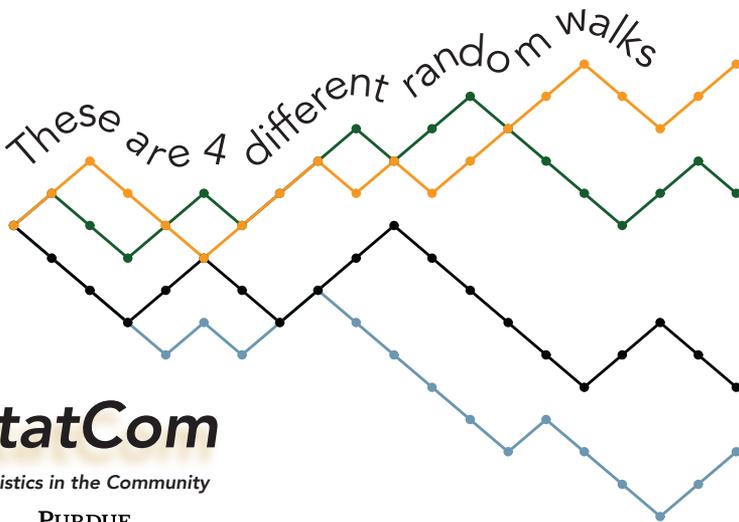
Heads +1
Go up!

Tails -1
Go down!

There is a 100% chance you will have the same number of heads and tails at some point – a probability of 1. This means a random walk is recurrent. However, the average number of flips it will take is infinite!

These are 4 different random walks

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