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Strategy for Team 2

- pick a paper to expose, giving each paper equal probability.
- if exposed number is "small" then switch, otherwise stick. That is

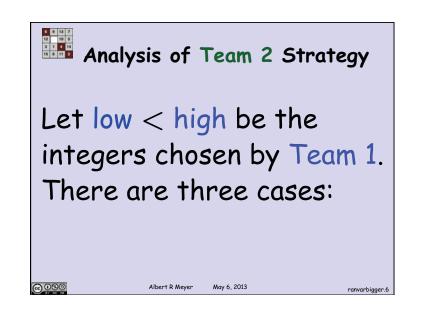
switch if \leq threshold Z where

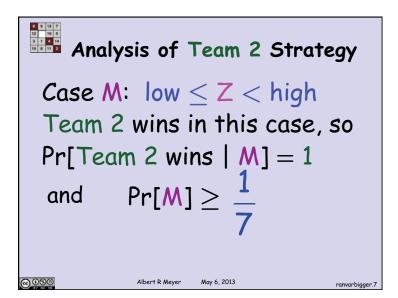
Albert R Meyer

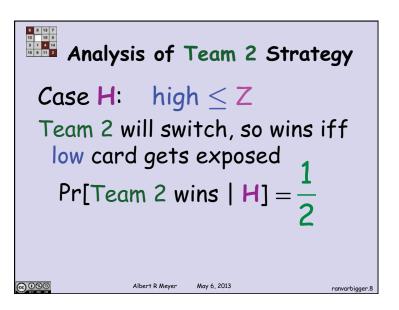
Z is a random integer $\in [0,7)$

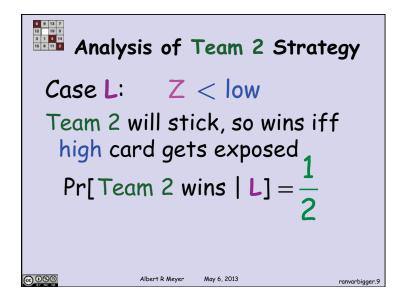
May 6, 2013

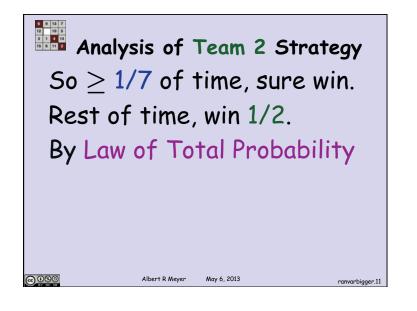
ranvarbigger.

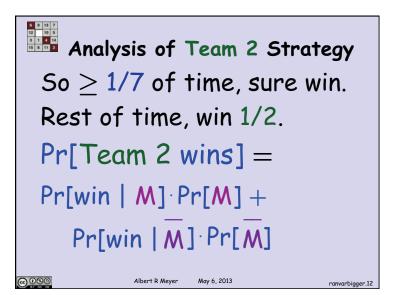




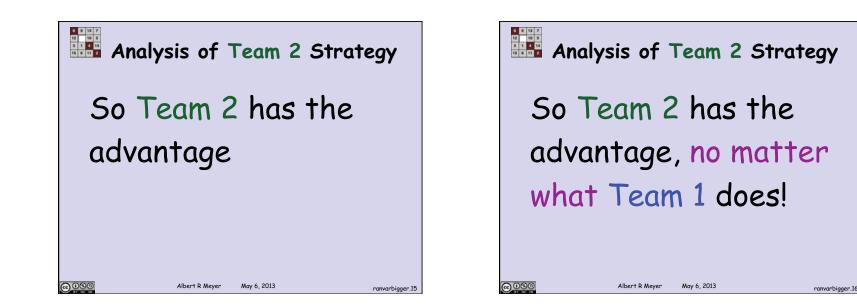








Analysis of Team 2 Strategy So \geq 1/7 of time, sure win. Rest of time, win 1/2. $\Pr[\text{Team 2 wins}] \geq$ $1 \cdot \frac{1}{2} + \frac{1}{2} \cdot (1 - 1)$ Albert R Mever May 6, 2013









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Random Variables

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Informally: an RV is a number produced by a random process:

- threshold variable Z
- number of exposed card
- number of larger card
- number of smaller card

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