Tableau 3, Part 2

Chance in commonplace settings: Urn models in statistical physics

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Occupancy problems

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- An occupancy configuration $(k_1, k_2, \ldots, k_r)$ has k_i balls in urn i. Thus: $k_1, k_2, \ldots, k_r \geq 0$ and $k_1 + k_2 + \cdots + k_r = n$.

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Given a random placement of balls in urns, what is the probability $P(k_1, k_2, \ldots, k_r)$ of observing a given occupancy configuration $(k_1, k_2, \ldots, k_r)$?