

RATES OF CONVERGENCE OF COLOR COUNT IN BALANCED URN MODELS

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We consider urn models containing balls of finitely many colors and with balanced replacement matrices, that is, replacement matrices with common row sum. Using martingale techniques, we study the rates of convergence of each color count in almost sure as well as L^p sense, for any $p > 0$. We also provide relationship between the limiting random variables corresponding to various colors thus obtained.