

Limits of sequences of Latin squares

Robert Hancock

We build up a limit theory for sequences of Latin squares, which parallels the theory of limits of dense graph sequences. Our limit objects, which we call Latinons, are certain two variable functions whose values are probability distributions on $[0, 1]$. Left-convergence is defined using densities of $k \times k$ subpatterns in finite Latin squares, which extends to Latinons. We also provide counterparts to the cut distance, and prove a counting lemma, and an inverse counting lemma. Joint work with Frederik Garbe, Jan Hladký and Maryam Sharifzadeh.