Random Designs

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Designs are regular combinatorial structures, generalising regular graphs and hypergraphs, that have strong connections to a diverse range of different areas of mathematics. Motivated by the flourishing theory of random regular graphs, and some breakthroughs in design theory due to Peter Keevash, the time seems ripe to investigate the subject of random designs. In this talk I’ll introduce the topic, briefly outline my proof of the theorem that almost all Steiner triple systems have a perfect matching, and present some open problems.