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Quantum chromatic number

Chromatic number of the graph is the minimum integer t such that each vertex is assigned one of the t colours, but adjacent vertices receive different colours. Recently, there has been interest in its quantum analogue. Published between 2007 and 2016, papers of Cameron, Mancinska, Roberson and Scarpa provide most of what is known to date about quantum chromatic number, which turns out to be defined in terms of quantum measurements, or a specific set of projections. Interestingly, we will see examples when quantum chromatic number is strictly less than chromatic number of the graph and outline directions of further research.