Switching techniques for enumeration of graphs and generation of random graphs

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The technique loosely called "switchings" has been successful for asymptotically counting graphs with given degrees, and some other objects, where other methods fail. The technique will be discussed in with emphasis on its relation to other perturbation methods, and its uses for random sampling. Recent results pertain to the distribution of subgraphs in a random graph, and fast methods of generating graphs with given degree sequence uniformly at random.