

## **The Combinatorics of RNA-Protein Interactions**

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An RNA molecule can be regarded as a string  $S$  drawn from the alphabet  $\{A,C,G,U\}$ , accompanied by a distribution of random graphs  $H$  whose vertices are the letters of  $S$  and in which the path corresponding to  $S$  is always present. In this talk I'll describe how we can use combinatorics and statistical physics to model the real-life distribution of  $H$ , and also talk a bit about my own recent work, in which protein-binding renders certain letters in  $S$  incapable of forming edges with non-adjacent letters.