On the applications of counting independent sets in hypergraphs

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Recently, Balogh-Morris-Samotij and Saxton-Thomason developed a method of counting independent sets in hypergraphs. During the talk, I show a recent application of the method; solving the following Erdős problem: What is the number of maximal triangle-free graphs?

If there is some extra time in the talk, I will survey some other recent applications.

These applications are partly joint with Das, Delcourt, Liu, Mycroft, Petrickova, Sharifzadeh and Treglown.