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*Burning number of some families of graphs*

Graph burning is a graph process that is defined on the vertex set of a simple finite graph  $G$  (It in fact can be seen as a model for the spread of any sort of influence among the members of a social network that are now represented by the vertices of  $G$ ). The burning number of  $G$  is the minimum number of steps that is needed in a graph burning process for  $G$ , and is denoted by  $b(G)$ . In this talk, we consider the graph burning problem for caterpillars and the asymptotic value of the burning number for the caterpillars in a random space. We also consider the burning number of  $n$ -dimensional hypercubes and show that a conjecture on the burning number of  $n$ -cubes indeed had been proved many years ago in a paper by Noga Alon. This is joint work with Yong Gao and Pawel Pralat.