
CALEB JONES, Memorial University of Newfoundland

Burning Triple Systems

We introduce a round-based model much like graph burning which applies to hypergraphs. The rules for this new model are very natural, and generalize the original model of graph burning. A second model called “lazy burning” is also introduced, along with a new parameter, the lazy burning number. We briefly discuss results and bounds for both models that apply to general hypergraphs, and then move on to the discussion of triple systems, which have a special significance in the context of burning. We focus mainly on Steiner triple systems, obtaining a lower bound on the burning number and an upper bound on the lazy burning number. Finally, we show some additional interesting results such as the fact that there are infinitely many Steiner triple systems with lazy burning number 3.