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Eddie Cheng, Justin Kelm, Roi Orzach* (rorzach@oakland.edu) and **Brian Xu**. *Strong Matching Preclusion of Burnt Pancake Graphs*.

The strong matching preclusion number of a graph is the minimum number of vertices and edges whose deletion results in a graph that has neither perfect matchings nor almost-perfect matchings. This is an extension of the matching preclusion problem that was introduced by Park and Ihm. The burnt pancake graph is a more complex variant of the pancake graph. In this paper, we examine the properties of burnt pancake graphs by finding its strong matching preclusion number and categorizing all optimal solutions. (Received December 15, 2014)