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**James M Carraher, William B Kinnersley\*** (billk@uri.edu), **Benjamin Reiniger** and **Douglas B West**. *Saturation Games on Graphs*.

Let  $\mathcal{F}$  be a family of graphs. We say that a graph  $G$  is  $\mathcal{F}$ -free if no member of  $\mathcal{F}$  appears as a subgraph of  $G$ . In the  $\mathcal{F}$ -saturation game, the players Max and Min collaboratively build an  $\mathcal{F}$ -free graph  $G$  on  $n$  vertices. The players alternately add edges to  $G$ , with the restriction that  $G$  must always remain  $\mathcal{F}$ -free. The game continues until no further edges can be added. Max aims to maximize the length of the game, while Min aims to minimize it; when both players play optimally, the length of the game is known as the *game saturation number* of  $\mathcal{F}$ , denoted  $\text{sat}_g(\mathcal{F}; n)$ .

In this talk, we give bounds on  $\text{sat}_g(\mathcal{F}; n)$  for a variety of choices of  $\mathcal{F}$ . We also pose some interesting open questions and conjectures. (Received July 18, 2016)