1154-05-937 **Matthew Beaudouin-Lafon**, **Margaret Crawford**, **Serena Chen** and **Nathaniel Karst*** (nkarst@babson.edu), 316 Babson Hall, Babson College, Wellesley, MA 02457, and **Louise Nielsen** and **Denise Sakai Troxell**. *Minimal Zero Blocking Sets of Rectangular, Cylindrical, and Mobius Grids.*

In a zero forcing process, an initial vertex labeling of a graph using labels 0 and 1 is updated iteratively according to the following conversion rule: change the label of a vertex from 1 to 0 if this vertex is the only neighbor labeled 1 of some vertex labeled 0. In this process, a zero forcing set is a set of vertices initially labeled 0 such that all the remaining vertices will ultimately have their labels changed from 1 to 0, and the zero forcing number is the minimum cardinality of a zero forcing set. We investigate two related concepts: a zero blocking set is the complement of a set which is not a zero forcing set, and the zero blocking number is the minimum cardinality of a zero blocking set. We provide upper and lower bounds for the zero blocking number of rectangular grids and discuss conditions under which these bounds coincide. We go on to use the same machinery to provide similar results for certain cylindrical and Mobius grids. (Received September 12, 2019)