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**Glenn Hurlbert\***, Dept of Math & Applied Math, Richmond, VA 23284-2014, **Liliana Alcon**, La Plata, Argentina, and **Maria Gutierrez**, La Plata, Argentina. *Pebbling in Split Graphs*.

Graph pebbling is a network optimization model for transporting discrete resources that are consumed in transit: the movement of two pebbles across an edge consumes one of the pebbles. The pebbling number of a graph is the fewest number of pebbles  $t$  so that, from any initial configuration of  $t$  pebbles on its vertices, one can place a pebble on any given target vertex via such pebbling steps. It is known that deciding if a given configuration on a particular graph can reach a specified target is NP-complete, even for diameter two graphs.

For many families of graphs there are formulas or polynomial algorithms for computing pebbling numbers; for example, cubes, trees, cycles, and diameter two graphs. Graphs having minimum pebbling number are called Class 0, and many authors have studied which graphs are Class 0.

In this paper we investigate an important family of diameter three chordal graphs called split graphs. We provide a formula for the pebbling number of a split graph, along with an algorithm for calculating it that runs in  $O(n^\beta)$  time, where  $\beta = 2\omega/(\omega + 1) \cong 1.41$  and  $\omega \cong 2.376$  is the exponent of matrix multiplication. Furthermore we determine that all split graphs with minimum degree at least 3 are Class 0. (Received September 22, 2014)