

1145-VP-2880 **Caitlin M Owens*** (owensc@rowan.edu), Rowan University, Robinson Hall, Suite 228, 201
Mullica Hill Road, Glassboro, NJ 08028, and **Garth Isaak**. *Forbidden subgraphs for Hamiltonian
problems on 2-trees*. Preliminary report.

It is known that 2-trees are Hamiltonian if and only if they are 1-tough. However, the analogous statement for Hamiltonian paths does not hold. We will define a family of 2-trees such that a 2-tree has a Hamiltonian path if and only if it does not contain any graph from that family as an induced graph. To define this family, we will examine a variation of the Hamiltonian path problem, 2HP, which is to determine whether or not it is possible to find a Hamiltonian path in a graph when both endpoints of the path are fixed. These results will be extended to the Hamiltonian path problem on 2-trees. (Received September 25, 2018)