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**Mary Ann Saadi\*** ([maryann@math.uri.edu](mailto:maryann@math.uri.edu)), University of Rhode Island, Mathematics Department, Tyler Hall, Kingston, RI 02881. *A Restriction on Tree-Tolerance Representations for Cycles*. Preliminary report.

A graph  $G = (V, E)$  is called a tree-tolerance graph with constant tolerance  $t$  provided there is a map  $v \mapsto S_v$  from  $V$  into a set of subtrees of a tree  $H$  such that  $vw \in E$  if and only if  $|V(S_v) \cap V(S_w)| \geq t$ . In this situation we call  $\{S_v\}_{v \in V}$  a constant tolerance representation for  $G$  and  $H$  the host tree for the representation. In this presentation we will consider a specific family of trees  $\mathcal{H}$  with exactly one vertex of degree three and exactly three leaves. We denote the set of tree-tolerance graphs with a host tree in  $\mathcal{H}$  with tolerance  $t$  as  $[\mathcal{H}(t)]$ . We will show that, for a sufficiently large  $n$ ,  $C_n \notin [\mathcal{H}(t)]$  for various  $t$  values.

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