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Zoltan Furedi and **Zeinab Maleki***, zmaleki@math.iut.ac.ir. *On the maximum induced decomposition of graphs.*

We say a graph G admits an *induced decomposition* to a graph H if the edges of G can be partitioned to the induced copies of H . For example, for even number n , the complete graph K_n minus a one factor has an induced decomposition into $\binom{n/2}{2}$ four-cycles. The maximum number of edges in a graph on n vertices which admits an induced decomposition to a given graph H is denoted by $ex^*(n, H)$. This parameter investigated by Bondy and Szwarcfiter [J. Graph Theory, DOI: 10.1002/jgt.21654] and they determined the value of $ex^*(n, H)$ for all graphs with at most 4 vertices (and some other families). In this talk we present some upper and lower bounds for $\binom{n}{2} - ex^*(n, H)$, especially we prove that for every graph H , $O(n^{2-c})$ is an upper bound where $c=c(H)>0$. (Received September 17, 2013)