On $C_4$-face (1, 0, 0)-magic Polyominoes

Richard M. Low*; San Jose State University

For a planar graph $G = (V, E)$ embedded in $\mathbb{R}^2$, let $\mathcal{F}(G)$ denote the set of faces of $G$. Then $G$ is called a $C_n$-face (1, 0, 0)-magic graph if there exists a bijection $f : V(G) \to \{1, 2, \ldots, |V(G)|\}$ such that for any $F \in \mathcal{F}(G)$ with $F \cong C_n$, the sum of all the vertex labels along $C_n$ is a constant $\Sigma$. We investigate polyomino graphs which are $C_4$-face (1, 0, 0)-magic.

This is joint work with H.C. Hsieh, S-M. Lee, B-J. Liang and S-P. Lo.

Key words: face, planar graph, $C_n$-face magic, Young tableau graph.