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Daniel S Silver and **Susan G Williams*** (swilliam@southalabama.edu). *Periodic plane graphs and medial link components.*

Let G be a connected, locally finite plane graph with a free \mathbb{Z}^2 -action by automorphisms. Applying the medial link construction to G , we obtain a (generalized) link of infinitely many components, which may be unbounded. We associate to G a finitely generated module $C(G)$ over the ring of Laurent polynomials in two variables with mod 2 coefficients. The orbit structure of the components of the link under \mathbb{Z}^2 can be determined from the sequence of elementary divisors of $C(G)$. A presentation matrix for $C(G)$ is easily obtained from graph data. (Received August 10, 2015)