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Selvi K. Beyarslan, Jennifer Biermann* (biermann@hws.edu), **Kuei-Nuan Lin** and **Augustine O’Keefe**. *Algebraic invariants of weighted oriented graphs*.

Let \mathcal{D} be a weighted oriented graph and let $I(\mathcal{D})$ be its edge ideal in a polynomial ring R . We give a formula for the Castelnuovo-Mumford regularity of $R/I(\mathcal{D})$ when \mathcal{D} is a weighted oriented path or cycle such that edges of \mathcal{D} are oriented in one direction. Additionally, we compute the projective dimension for this class of graphs. (Received January 27, 2020)