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Christine Berkesch* (cberkesc@math.purdue.edu), Purdue University, Department of Mathematics, 150 North University Street, West Lafayette, IN 47907, and **Daniel Erman** and **Manoj Kummini**. *The poset structures of Boij–Soederberg theory.*

The proof of the Boij–Soederberg conjectures by Eisenbud and Schreyer provides powerful structure theorems for the cones of Betti tables of standard graded minimal free resolutions over polynomial rings and cohomology tables of vector bundles on projective spaces. The extremal rays of these cones correspond to degree sequences of pure resolutions and root sequences of Hilbert polynomials of vector bundles, respectively. We provide an interpretation of the poset structure on the extremal rays in terms of the existence of nonzero homomorphisms. This suggests a method for generalizing this partial order to multigraded rings and toric varieties. (Received April 13, 2010)