arXiv:1211.1316 **Bounds for the Multiplicity of Gorenstein algebras.** Sabine El Khoury, Manoj Kummini, Hema Srinivasan. math.AC.
An application of Boij-Soederberg Theory.

arXiv:1210.8069 **Betti diagrams from graphs.** Alexander Engström, Matthew T. Stamps. math.CO (math.AC).
Application of Boij-Soederberg theory to the edge ideals of graphs.

arXiv:1207.5467 **Asymptotics of random Betti tables.** Lawrence Ein, Daniel Erman, Robert Lazarsfeld. math.AG (math.AC).
--A conjecture based on Boij-Soederberg numerics about the resolutions of high degree embeddings of projective varieties.

arXiv:1205.0449 **Categorified duality in Boij-Söderberg Theory and invariants of free complexes.** David Eisenbud, Daniel Erman. math.AC (math.AG).
--A basic reinterpretation of the Eisenbud-Schreyer duality theory leading to substantial enlargement of the applicability of this idea (such as decompositions of complexes with homology, and duality for multigraded resolutions…)

arXiv:1203.6515 **Combinatorial Interpretations of some Boij-Söderberg Decompositions.** Uwe Nagel, Stephen Sturgeon. math.AC (math.CO).
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arXiv:1109.5198 **The cone of Betti diagrams over a hypersurface ring of low embedding dimension.** Christine Berkesch, Jesse Burke, Daniel Erman, CourtneyGibbons. Mittag-Leffler-2011spring. math.AC.
--An exploration of the cone of Betti tables in the simplest case with infinite resolutions.

arXiv:1106.0381 **Boij-Söderberg theory: Introduction and survey.** Gunnar Floystad. *Progress in Commutative Algebra* 1, Combinatorics and homology, (C. Francisco et.al. eds.), Proceedings in mathematics, du Gruyter, 2012, pp. 1-54. math.AC.
--An extensive exposition of Boij-Soederberg theory. Unfortunately it was written too early to make use of the categorified duality of Eisenbud-Erman.

arXiv:1102.3559 **Betti Numbers of Syzygies and Cohomology of Coherent Sheaves.** David Eisenbud, Frank-Olaf Schreyer. *Proceedings of the ICM, Hyderabad* 2010, vol. 2, 586--602. math.AG (math.AC).
--An exposition and some simplified proofs, based on Schreyer's ICM lecture.

arXiv:1109.4591 **The Banks of the Cohomology River.** David Eisenbud, math.AG.
--An application of Boij-Soederberg ideas (though not directly the theory) to the question: given the cohomology tables of sheaves E,F, what can be said about the cohomology of the tensor product? Introduces higher regularity indices and their expression in terms of linear monads.

arXiv:1101.4604 **Tensor complexes: Multilinear free resolutions constructed from higher tensors.** Christine Berkesch, Daniel Erman, Manoj Kummini, Steven V Sam. Mittag-Leffler-2011spring. math.AC (math.AG).
--Extends the Eisenbud-Schreyer construction of pure resolutions by introducing coefficients, obtaining a much larger family of complexes that generalizes, in particular, the family defined by Buchsbaum and Eisenbud that includes the Eagon-Northcott and Buchsbaum-Rim complexes.

arXiv:1010.2663 **Poset structures in Boij-Söderberg theory.** Christine Berkesch, Daniel Erman, Manoj Kummini, Steven V Sam. Mittag-Leffler-2011spring. *Int. Math. Res. Not. IMRN (*2012), no. 22, 5132-5160. math.AC (math.AG).
--An interpretation of the poset structure of degree sequences in terms of homomorphisms of modules; part of a program to ``explain'' some of the consequences of Boij-Soederberg theory in module or sheaf-theoretic terms.

arXiv:1006.2026 **The structure of the Boij-Söderberg posets.** David Cook II. *Proceedings of the American Mathematical Society* 139 (2011), no. 6, 2009-2015.math.CO.
--A combinatorial analysis of the cone of Betti tables from the point of view of the lattice of degree sequences in a given interval, generalizing

facts about the Bruhat order to the case of degree sequences of differing lengths.

arXiv:1001.3238 **The cone of Betti diagrams of bigraded artinian modules of codimension two.** Mats Boij, Gunnar Floystad. math.AC.
--An extension of the theory beyond the singly graded case.

arXiv:1001.0585 **Filtering free resolutions.** David Eisenbud, Daniel Erman, Frank-Olaf Schreyer. math.AC (math.AG).
Gives sufficient conditions under which the Boij-Soederberg decomposition of a Betti table is reflected in the decomposition of the resolutions. Uses this to compute the semigroup of Betti tables in the case of modules over k[x,y,z] generated in degree >=0 and having regularity <=1. Part of a program to ``explain'' some of the consequences of Boij-Soederberg theory in module or sheaf-theoretic terms.

arXiv:0907.4505 **Pieri resolutions for classical groups.** Steven V Sam, Jerzy Weyman. *J. Algebra* 329 (2011), 222-259. math.AC (math.CO math.RT).
--Reproves and extends the constructions of pure resolutions in Eisenbud-Floeystad-Weyman.

arXiv:0907.3912 **Some algebraic consequences of Green's hyperplane restriction theorems.** Mats Boij, Fabrizio Zanello. *JPAA* 214 (2010), no. 7, 1263-1270. math.AC(math.AG).

arXiv:0902.0316 **A special case of the Buchsbaum-Eisenbud-Horrocks rank conjecture.** Daniel Erman. *Mathematical Research Letters,* 17 (2010), 1079-1089.math.AC (math.AG).
--Applies Boij-Soederberg theory to prove the Buchsbaum-Eisenbud-Horrocks conjecture on the sum of the ranks in a free resolution in a certain range of cases.

arXiv:0806.4401 **The Semigroup of Betti Diagrams.** Daniel Erman. *Algebra and Number Theory,* 3 (2009), 341-365. math.AC (math.AG).
--Proves that the semigroup of Betti tables in a finite interval is finitely generated. Gives generators in the the smallest cases.

arXiv:0803.1645 **Betti numbers of graded modules and the Multiplicity Conjecture in the non-Cohen-Macaulay case.** Mats Boij, Jonas Soderberg. math.AC(math.AG).
--Treats the non-Cohen-Macaulay case. Extends the original conjectures and proves the extension using the Eisenbud-Schreyer pairings.

arXiv:0712.1843 **Betti Numbers of Graded Modules and Cohomology of Vector Bundles.** David Eisenbud, Frank-Olaf Schreyer. math.AC (math.AG).
--proves Boij-Soederberg conjectures, and the analogous conjectures for the cone of cohomology tables by introducing a family of pairings between these cones. Proves existence of pure resolutions and supernatural vector bundles in all characteristics.

arXiv:0709.1529 **The Existence of Pure Free Resolutions.** David Eisenbud, Gunnar Floystad, Jerzy Weyman. *Annales de l'institut Fourier,* 61 (2011), no. 3, p. 905-926. math.AC (math.RT).
--proves existence of equivariant pure resolutions in characteristic 0.

math/0611081 **Graded Betti numbers of Cohen-Macaulay modules and the Multiplicity conjecture.** Mats Boij, Jonas Söderberg. math.AC.
--The paper with the conjectures for the cone of Betti tables of Cohen-Macaulay modules that led to the theory.

J. Herzog and H. Srinivasan. Bounds for Multiplicities. Trans. Am. Math. Soc. (1998) 2879–2902.
--The "Mulitiplicity Conjecture" of Herzog-Huneke-Srinivasan that started the whole process.

J. Herzog and M. K\"uhl. On the betti numbers of finite pure and linear resolutions. Comm. in Alg. 12 (13) (1984) 1627–1646.
--A basic result about pure resolutions.