

References

- [ABLS20] Ayah Almousa, Juliette Bruce, Michael Loper, and Mahrud Sayrafi, *The virtual resolutions package for Macaulay2*, J. Softw. Algebra Geom. **10** (2020), no. 1, 51–60.
- [AFP⁺19] Marian Aprodu, Gavril Farkas, Ștefan Papadima, Claudiu Raicu, and Jerzy Weyman, *Koszul modules and Green’s conjecture*, Inventiones mathematicae (2019).
- [AF11] Marian Aprodu and Gavril Farkas, *Green’s conjecture for curves on arbitrary K3 surfaces*, Compos. Math. **147** (2011), no. 3, 839–851.
- [BE91] Dave Bayer and David Eisenbud, *Graph curves*, Adv. Math. **86** (1991), no. 1, 1–40. With an appendix by Sung Won Park.
- [BEL91] Aaron Bertram, Lawrence Ein, and Robert Lazarsfeld, *Vanishing theorems, a theorem of Severi, and the equations defining projective varieties*, J. Amer. Math. Soc. **4** (1991), no. 3, 587–602.
- [BES20] Christine Berkesch, Daniel Erman, and Gregory G. Smith, *Virtual resolutions for a product of projective spaces*, Algebr. Geom. **7** (2020), no. 4, 460–481, DOI 10.14231/ag-2020-013. MR4156411
- [BBC⁺22] Madeline Brandt, Juliette Bruce, Melody Chan, Margarida Melo, Gwyneth Moreland, and Corey Wolfe, *On the top-weight rational cohomology of \mathcal{A}_g* , Geometry & Topology (2022). to appear.
- [BE22] Michael K. Brown and Daniel Erman, *Tate resolutions on toric varieties* (2022). Pre-print: [arxiv:2108.03345](https://arxiv.org/abs/2108.03345).
- [BE23a] ———, *Linear syzygies of curves in weighted projective space* (2023). Pre-print: [arxiv:2301.0915](https://arxiv.org/abs/2301.0915).
- [BE23b] ———, *A short proof of the Hanlon-Hicks-Lazarev Theorem* (2023). Pre-print: [arxiv:2303.14319](https://arxiv.org/abs/2303.14319).
- [BEGY20] Juliette Bruce, Daniel Erman, Steve Goldstein, and Jay Yang, *Conjectures and computations about Veronese syzygies*, Exp. Math. **29** (2020), no. 4, 398–413.
- [BEGY21] ———, *The Schur-Veronese package in Macaulay2*, J. Softw. Algebra Geom. **11** (2021), no. 1, 83–87.
- [Bru19] Juliette Bruce, *Asymptotic syzygies in the setting of semi-ample growth* (2019). Pre-print: [arxiv:1904.04944](https://arxiv.org/abs/1904.04944).
- [Bru22] ———, *The quantitative behavior of asymptotic syzygies for Hirzebruch surfaces*, J. Commut. Algebra **14** (2022), no. 1, 19–26.
- [BCE⁺22] Juliette Bruce, Daniel Corey, Daniel Erman, Steve Goldstein, Robert P. Laudone, and Jay Yang, *Syzygies of $\mathbb{P}^1 \times \mathbb{P}^1$: data and conjectures*, J. Algebra **593** (2022), 589–621.
- [BCHS21] Juliette Bruce, Lauren Cranton Heller, and Mahrud Sayrafi, *Characterizing Multigraded Regularity on Products of Projective Spaces* (2021). Pre-print: [arxiv:2110.10705](https://arxiv.org/abs/2110.10705).
- [BCHS22] ———, *Bounds on Multigraded Regularity* (2022). Pre-print: [arxiv:2208.11115](https://arxiv.org/abs/2208.11115).
- [BB21] Weronika Buczyńska and Jarosław Buczyński, *Apolarity, border rank, and multigraded Hilbert scheme*, Duke Math. J. **170** (2021), no. 16, 3659–3702.
- [CEVV09] Dustin A. Cartwright, Daniel Erman, Mauricio Velasco, and Bianca Viray, *Hilbert schemes of 8 points*, Algebra Number Theory **3** (2009), no. 7, 763–795.
- [CGP21] Melody Chan, Søren Galatius, and Sam Payne, *Tropical curves, graph complexes, and top weight cohomology of \mathcal{M}_g* , J. Amer. Math. Soc. **34** (2021), no. 2, 565–594.
- [Cha97] Karen A. Chandler, *Regularity of the powers of an ideal*, Comm. Algebra **25** (1997), no. 12, 3773–3776.
- [Cox95] David A. Cox, *The homogeneous coordinate ring of a toric variety*, J. Algebraic Geom. **4** (1995), no. 1, 17–50. MR1299003
- [CHT99] S. Dale Cutkosky, Jürgen Herzog, and Ngô Việt Trung, *Asymptotic behaviour of the Castelnuovo-Mumford regularity*, Compositio Mathematica **118** (1999), no. 3, 243–261.
- [EL93] Lawrence Ein and Robert Lazarsfeld, *Syzygies and Koszul cohomology of smooth projective varieties of arbitrary dimension*, Invent. Math. **111** (1993), no. 1, 51–67.
- [EL12] ———, *Asymptotic syzygies of algebraic varieties*, Invent. Math. **190** (2012), no. 3, 603–646.
- [EES15] David Eisenbud, Daniel Erman, and Frank-Olaf Schreyer, *Tate resolutions for products of projective spaces*, Acta Math. Vietnam. **40** (2015), no. 1, 5–36, DOI 10.1007/s40306-015-0126-z. MR3331930
- [EG84] David Eisenbud and Shiro Goto, *Linear free resolutions and minimal multiplicity*, J. Algebra **88** (1984), no. 1, 89–133.

- [Eis05] David Eisenbud, *The geometry of syzygies*, Graduate Texts in Mathematics, vol. 229, Springer-Verlag, New York, 2005. A second course in commutative algebra and algebraic geometry.
- [EY18] Daniel Erman and Jay Yang, *Random flag complexes and asymptotic syzygies*, Algebra Number Theory **12** (2018), no. 9, 2151–2166.
- [GVT15] Elena Guardo and Adam Van Tuyl, *Arithmetically Cohen-Macaulay sets of points in $\mathbb{P}^1 \times \mathbb{P}^1$* , SpringerBriefs in Mathematics, Springer, Cham, 2015. MR3443335
- [FP05] Gavril Farkas and Mihnea Popa, *Effective divisors on $\overline{\mathcal{M}}_g$, curves on K3 surfaces, and the slope conjecture*, J. Algebraic Geom. **14** (2005), no. 2, 241–267.
- [Far06] Gavril Farkas, *Syzygies of curves and the effective cone of $\overline{\mathcal{M}}_g$* , Duke Math. J. **135** (2006), no. 1, 53–98.
- [FK16] Gavril Farkas and Michael Kemeny, *The generic Green-Lazarsfeld secant conjecture*, Invent. Math. **203** (2016), no. 1, 265–301.
- [FK17] ———, *The Prym-Green conjecture for torsion line bundles of high order*, Duke Math. J. **166** (2017), no. 6, 1103–1124.
- [GLL15] Ofer Gabber, Qing Liu, and Dino Lorenzini, *Hypersurfaces in projective schemes and a moving lemma*, Duke Math. J. **164** (2015), no. 7, 1187–1270.
- [Gre84a] Mark L. Green, *Koszul cohomology and the geometry of projective varieties*, J. Differential Geom. **19** (1984), no. 1, 125–171.
- [Gre84b] ———, *Koszul cohomology and the geometry of projective varieties. II*, J. Differential Geom. **20** (1984), no. 1, 279–289.
- [HHL23] Andrew Hanlon, Jeff Hicks, and Oleg Lazarev, *Resolutions of toric subvarieties by line bundles and applications* (2023). Pre-print: [arxiv:2303.03763](https://arxiv.org/abs/2303.03763).
- [Kod00] Vijay Kodiyalam, *Asymptotic behaviour of Castelnuovo-Mumford regularity*, Proc. Amer. Math. Soc. **128** (2000), no. 2, 407–411.
- [Kon93] Maxim Kontsevich, *Formal (non)commutative symplectic geometry*, The Gelfand Mathematical Seminars, 1990–1992, Birkhäuser Boston, Boston, MA, 1993, pp. 173–187.
- [Kon94] ———, *Feynman diagrams and low-dimensional topology*, First European Congress of Mathematics, Vol. II (Paris, 1992), Progr. Math., vol. 120, Birkhäuser, Basel, 1994, pp. 97–121.
- [LPP11] Robert Lazarsfeld, Giuseppe Pareschi, and Mihnea Popa, *Local positivity, multiplier ideals, and syzygies of abelian varieties*, Algebra Number Theory **5** (2011), no. 2, 185–196.
- [Lem18] Alexander Lemmens, *On the n -th row of the graded Betti table of an n -dimensional toric variety*, J. Algebraic Combin. **47** (2018), no. 4, 561–584.
- [M2] Daniel R. Grayson and Michael E. Stillman, *Macaulay 2, a software system for research in algebraic geometry*. Available at <http://www.math.uiuc.edu/Macaulay2/>.
- [MS05] Diane Maclagan and Gregory G. Smith, *Uniform bounds on multigraded regularity*, J. Algebraic Geom. **14** (2005), no. 1, 137–164.
- [MS04] ———, *Multigraded Castelnuovo-Mumford regularity*, J. Reine Angew. Math. **571** (2004), 179–212.
- [Mum70] David Mumford, *Varieties defined by quadratic equations*, Questions on Algebraic Varieties (C.I.M.E., III Ciclo, Varenna, 1969), Edizioni Cremonese, Rome, 1970, pp. 29–100.
- [Mum66] D. Mumford, *On the equations defining abelian varieties. I*, Invent. Math. **1** (1966), 287–354.
- [OP01] Giorgio Ottaviani and Raffaella Paoletti, *Syzygies of Veronese embeddings*, Compositio Math. **125** (2001), no. 1, 31–37.
- [Par00] Giuseppe Pareschi, *Syzygies of abelian varieties*, J. Amer. Math. Soc. **13** (2000), no. 3, 651–664.
- [PP03] Giuseppe Pareschi and Mihnea Popa, *Regularity on abelian varieties. I*, J. Amer. Math. Soc. **16** (2003), no. 2, 285–302.
- [PP04] ———, *Regularity on abelian varieties. II. Basic results on linear series and defining equations*, J. Algebraic Geom. **13** (2004), no. 1, 167–193.
- [Sch86] Frank-Olaf Schreyer, *Syzygies of canonical curves and special linear series*, Math. Ann. **275** (1986), no. 1, 105–137.
- [Voi02] Claire Voisin, *Green’s generic syzygy conjecture for curves of even genus lying on a K3 surface*, J. Eur. Math. Soc. (JEMS) **4** (2002), no. 4, 363–404.

- [Voi05] ———, *Green's canonical syzygy conjecture for generic curves of odd genus*, Compos. Math. **141** (2005), no. 5, 1163–1190.
- [Wil15] Thomas Willwacher, *M. Kontsevich's graph complex and the Grothendieck-Teichmüller Lie algebra*, Invent. Math. **200** (2015), no. 3, 671–760, DOI 10.1007/s00222-014-0528-x. MR3348138