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#### **Publications**

- 10. J. Bruce and D. Erman. A probabilistic approach to systems of parameters and Noether normalization. *Algebra and Number Theory*, Accepted. E-print: arXiv:1604.01704.
- 9. J. Bruce and W. Li. Effective bounds on the dimensions of Jacobians covering abelian varieties. *Proc. Amer. Math. Soc.*, Accepted. E-print: arXiv:1804.11015.
- 8. J. Bruce, D. Erman, S. Goldstein, and J. Yang. Conjectures and computations about Veronese syzygies. *Experimental Mathematics*, To Appear. E-print: arXiv:1711.03513.
- 7. M. Brandt, J. Bruce, T. Brysiewicz, R. Krone, and E. Robeva. The degree of SO(n). Combinatorial Algebraic Geometry, 207-224, Fields Inst. Commun. **80**, (2017). E-print: arXiv:1701.03200.
- 6. J. Bruce, M. Logue, and R. Walker. Monomial valuations, cusp singularities, and continued fractions. *Journal of Commutative Algebra*, 7 (2015) no. 4, 495-522. E-print: arXiv:1311.6493.
- 5. J. Bruce, P. Kao, E. Nash, B. Perez, and P. Vermeire. Betti tables of reducible algebraic curves. *Proc. Amer. Math. Soc.* **142** (2014) 4039-4051. E-print: arXiv:1210.3064.

## **Pre-Prints**

- 4. J. Bruce. The Quantitative Behavior of Asymptotic Syzygies for Hirzebruch Surfaces. *Submitted*. E-Print: arXiv:1906.07333.
- 3. J. Bruce, D. Erman, S. Goldstein, and J. Yang. The SchurVeronese package in Macaulay2. *Submitted*. E-print: arXiv:1905.12661.
- 2. A. Almousa, J. Bruce, M. Loper, and M. Sayrafi. The Virtual Resolutions Package for Macaulay2. *Submitted.* E-print: arXiv:1905.07022.
- 1. J. Bruce. Asymptotic Syzygies in the Setting of Semi-Ample Growth. Submitted. E-Print: arXiv:1904.04944

### Software

- 2. SchurVeronese, (with D. Erman, S. Goldstein, and J. Yang). Submitted for distribution with future releases of Macaulay2, a compute algebra system focused on computations in algebraic geometry and commutative algebra.
- 1. VirtualResolutions, (with A. Almousa, M. Loper, and M. Sayrafi). Distributed with version 1.14 of Macaulay2 (2019).

# Multimedia

1. SyzygyData.com, (with D. Erman, S. Goldstein, and J. Yang). An online public database on large-scale syzygy computations.