

PUBLICATIONS:

- B. Ichim. “Generalized Koszul Complexes”. Thesis, Oldenburg University (Germany, 2004).
- B. Ichim and U. Vetter. “Koszul Bicomplexes and generalized Koszul complexes in projective dimension one”. Comm. In Algebra. 34, 4131 – 4156 (2006).
- B. Ichim and U. Vetter. “Length Formulas for the homology of generalized Koszul complexes”. Revue Roumaine de Math. Pures et App. 52 (2), 177 – 199 (2007).
- B. Ichim and U. Vetter. “Generalized Koszul complexes” . Analele Stiintifice ale Universitatii Ovidius. 14 (2), 61 – 72 (2007).
- W. Bruns and B. Ichim. “On the coefficients of Hilbert quasipolynomials”. Proceedings of the AMS. 135 (5), 1305 –1308 (2007) .
- B. Ichim and T. Römer. “On toric face rings”. Journal of Pure and App. Algebra. 210, 249 – 266 (2007).
- B. Ichim and T. Römer. “The canonical module of a toric face ring”. Nagoya Math. J. 194, 69 – 90 (2009).
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- W. Bruns and B. Ichim. “Normaliz: Algorithms for Affine Monoids and Rational Cones”. J. Algebra 324, 1098 – 1113 (2010).
- W. Bruns, B. Ichim and C. Söger. “Introduction to Normaliz 2.5”. LNCS 6327, 209 – 212 (2010).
- V. Almendra and B. Ichim. “Introduction to jNormaliz 1.0”. Proceedings of ISCOPAM 2010, Iasi, 81 – 86 (2011).
- W. Bruns, R. Hemmecke, B. Ichim, M Köppe and Christof Söger. “Challenging computations of Hilbert bases of cones associated with algebraic statistics”. Exp. Math. 20 (1), 25 – 33 (2011).
- W. Bruns, B. Ichim and C. Söger. “The power of pyramid decompositions in Normaliz”. Preprint <http://arxiv.org/abs/1206.1916>.
- B. Ichim and J. J. Moyano-Fernández. “How to compute the multigraded Hilbert depth of a module”. Mathematische Nachrichten 287, 1274 – 1287 (2014).
- B. Ichim and A. Zarajanu. “An algorithm for computing the multigraded Hilbert depth of a module”. To appear in Experimental Mathematics. Preprint <http://arxiv.org/abs/1304.7215>.
- B. Ichim, L. Katthän and J. J. Moyano-Fernández. “The behavior of Stanley depth under polarization”. Preprint <http://arxiv.org/abs/1401.4309>.
- B. Ichim, L. Katthän and J. J. Moyano-Fernández. “The behavior of depth and Stanley depth under maps of the lcm-lattice”. Preprint <http://arxiv.org/abs/1405.3602>.

COMPUTER ALGEBRA:

- W. Bruns and B. Ichim. “Normaliz 2.0”, a totally new C++ implementation of the program “Normaliz” (2008).
- W. Bruns and B. Ichim. “Normaliz 2.1”, an update of “Normaliz 2.0”, with the addition of new algorithms (2009).
- W. Bruns and B. Ichim. “Normaliz 2.2”, an update of “Normaliz 2.1”, containing mainly changes to the user interface (2009).
- W. Bruns, B. Ichim and Christof Söger. “Normaliz 2.5”, a major upgrade of “Normaliz 2.2”, with the addition of new algorithms, new interface and parallel processing (2010).
- V. Almendra and B. Ichim. “jNormaliz 1.0”, a Java GUI for the program “Normaliz 2.5” (2010).
- W. Bruns, B. Ichim and Christof Söger. “Normaliz 2.7”, a major upgrade of “Normaliz 2.5”, unites the former norm64 and normbig in a single executable normaliz and h-vector computation are considerably improved (2011).
- V. Almendra and B. Ichim. “jNormaliz 1.1”, a Java GUI for the program “Normaliz 2.7” (2011).
- W. Bruns, B. Ichim and Christof Söger. “Normaliz 2.8”, a major upgrade of “Normaliz 2.7”, adds arbitrary Z-gradings to Normaliz and improves the performance considerably (2012).
- V. Almendra and B. Ichim. “jNormaliz 1.2”, a Java GUI for the program “Normaliz 2.8” (2012).
- W. Bruns, B. Ichim and Christof Söger. “Normaliz 2.9”, an update of “Normaliz 2.8”, improves volume computations and includes NmzIntegrate 1.0 (2013).
- V. Almendra and B. Ichim. “jNormaliz 1.4”, a Java GUI for the program “Normaliz 2.9” (2013).
- W. Bruns, B. Ichim and Christof Söger. “Normaliz 2.10”, an update of “Normaliz 2.9”, adds corrections in the exchange of data between Normaliz and NmzIntegrate (2013).
- W. Bruns, B. Ichim, Tim Römer and Christof Söger. “Normaliz 2.11”, an update of “Normaliz 2.10”, adds input types for semiopen cones, inhomogeneous systems and polyhedra (2014).
- V. Almendra and B. Ichim. “jNormaliz 1.5”, a Java GUI for the program “Normaliz 2.11” (2014).
- B. Ichim and A. Zarojanu. “Hdepth 1.0”, first implementation of an algorithm for computing the multigraded Hilbert depth of a module (2013).
- B. Ichim. “Sdepth 1.0”. A program for computing sdepth. Work in progress.