

References

- [1] S.A. Abramov and M. Petkovšek. On polynomial solutions of linear partial differential and $(q-)$ difference equations. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 1–11. Springer-Verlag, Berlin-Heidelberg, 2012.
- [2] Prabhanjan Ananth and Ambedkar Dukkipati. An algebraic characterization of rainbow connectivity. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 12–21. Springer-Verlag, Berlin-Heidelberg, 2012.
- [3] Alexander Batkhin. Application of the method of asymptotic solution to one multi-parameter problem. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 22–33. Springer-Verlag, Berlin-Heidelberg, 2012.
- [4] Marco Bodrato and Alberto Zanoni. A new algorithm for long integer cube computation with some insight into higher powers. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 34–46. Springer-Verlag, Berlin-Heidelberg, 2012.
- [5] Pavel Bourdykine and Stephen M. Watt. Lightweight abstraction for mathematical computation in java. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 47–59. Springer-Verlag, Berlin-Heidelberg, 2012.

- [6] Alexander D. Bruno and Victor F. Edneral. Calculation of normal forms of the euler-poisson equations. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 60–71. Springer-Verlag, Berlin-Heidelberg, 2012.
- [7] Dzmityr A. Budzko and Alexander N. Prokopenya. Stability of equilibrium positions in the spatial circular restricted four-body problem. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 72–83. Springer-Verlag, Berlin-Heidelberg, 2012.
- [8] Hassan Errami, Werner M. Seiler, Markus Eiswirth, and Andreas Weber. Computing hopf bifurcations in chemical reaction networks using reaction coordinates. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 84–97. Springer-Verlag, Berlin-Heidelberg, 2012.
- [9] Vladimir Gerdt and Amir Hashemi. Comprehensive involutive systems. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 98–116. Springer-Verlag, Berlin-Heidelberg, 2012.
- [10] Mark Giesbrecht and Albert Heinle. A polynomial-time algorithm for the jacobson form of a matrix of ore polynomials. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 117–128. Springer-Verlag, Berlin-Heidelberg, 2012.
- [11] Jaume Giné, Colin Christopher, Mateja Prešern, Valery G. Romanovski, and Natalie L. Shcheglova. The resonant center problem for a 2:-3 reso-

- nant cubic lotka-volterra system. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 129–142. Springer-Verlag, Berlin-Heidelberg, 2012.
- [12] Dima Grigoriev and Andreas Weber. Complexity of solving systems with few independent monomials and applications to mass-action kinetics. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 143–154. Springer-Verlag, Berlin-Heidelberg, 2012.
- [13] Alexander Gusev, Sergue Vinitzky, Ochbadrakh Chuluunbaatar, Vladimir Gerdt, Luong Le Hai, and Vitaly Rostovtsev. Symbolic-numerical calculations of high- $|m|$ rydberg states and decay rates in strong magnetic fields. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 155–171. Springer-Verlag, Berlin-Heidelberg, 2012.
- [14] Amir Hashemi, Michael Schweinfurter, and Werner M. Seiler. Quasistability versus genericity. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 172–184. Springer-Verlag, Berlin-Heidelberg, 2012.
- [15] Gregor Kemper. Invariant theory: Applications and computations. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 185–185. Springer-Verlag, Berlin-Heidelberg, 2012. Invited Talk (Abstract only).
- [16] Jia Li, Jin-San Cheng, and Elias P. Tsigaridas. Local generic position for root isolation of zero-dimensional triangular polynomial systems. In

- Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 186–197. Springer-Verlag, Berlin-Heidelberg, 2012.
- [17] Steffen Marcus, Marc Moreno Maza, and Paul Vrbik. On fulton’s algorithm for computing intersection multiplicities. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 198–211. Springer-Verlag, Berlin-Heidelberg, 2012.
- [18] Marc Mezzarobba. A note on the space complexity of fast d-finite function evaluation. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 212–223. Springer-Verlag, Berlin-Heidelberg, 2012.
- [19] Michael Monagan and Roman Pearce. Sparse polynomial powering using heaps. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 236–247. Springer-Verlag, Berlin-Heidelberg, 2012.
- [20] Marc Morena Maza, Éric Schost, and Paul Vrbik. Inversion modulo zero-dimensional regular chains. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 224–235. Springer-Verlag, Berlin-Heidelberg, 2012.
- [21] Katsusuke Nabeshima. Stability conditions of monomial bases and comprehensive gröbner systems. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the*

14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012), volume 7442 of *LNCS*, pages 248–259. Springer-Verlag, Berlin-Heidelberg, 2012.

- [22] Severin Neumann. Parallel reduction of matrices in gröbner bases computations. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 260–270. Springer-Verlag, Berlin-Heidelberg, 2012.
- [23] Victor Y. Pan. Root-refining for a polynomial equation. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 283–293. Springer-Verlag, Berlin-Heidelberg, 2012.
- [24] Victor Y. Pan, Guoliang Qian, and Ai-Long Zheng. Real and complex polynomial root-finding by means of eigen-solving. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 271–282. Springer-Verlag, Berlin-Heidelberg, 2012.
- [25] Satya Swarup Samal, Hassan Errami, and Andreas Weber. Pocab: A software infrastructure to explore algebraic methods for bio-chemical reaction networks. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 294–307. Springer-Verlag, Berlin-Heidelberg, 2012.
- [26] Tateaki Sasaki and Daiju Inaba. Approximately singular systems and ill-conditioned polynomial systems. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 308–320. Springer-Verlag, Berlin-Heidelberg, 2012.

- [27] Vasily P. Shapeev and Evgenii V. Vorozhtsov. Symbolic-numeric implementation of the method of collocations and least squares for 3d navier-stokes equations. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 321–333. Springer-Verlag, Berlin-Heidelberg, 2012.
- [28] Zhikun She and Haoyang Li. Verifiable conditions on asymptotic stabilisability for a class of planar switched linear systems. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 334–348. Springer-Verlag, Berlin-Heidelberg, 2012.
- [29] Jing Yang, Dongming Wang, and Hoon Hong. Improving angular speed uniformity by optimal c^0 piecewise reparameterization. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 349–360. Springer-Verlag, Berlin-Heidelberg, 2012.
- [30] Kazuhiro Yokoyama. Usage of modular techniques for efficient computation of ideal operations. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 14th International Workshop on Computer Algebra in Scientific Computing, CASC'2012 (Maribor, Slovenia, September 3-6, 2012)*, volume 7442 of *LNCS*, pages 361–362. Springer-Verlag, Berlin-Heidelberg, 2012. Invited Talk (Abstract only).