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Proceedings of the Sixth European Conference on Computer Algebra held at Karl-Marx University, Leipzig, June 2–5, 1987.

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{The Fifth European Conference has been reviewed [MR 87a:68006; [MR0826552 \(87a:68007\)](#)].}

The seventy-nine papers in this collection include the following: R. N. Fedorova, V. P. Gerdt, N. N. Govorun and V. P. Shirikov, Computer algebra in physical research of JINR (pp. 1–10); D. Yu. Grigor'ev, Complexity of quantifier elimination in the theory of ordinary differential equations (pp. 11–25); Geoff C. Smith, Groups and polynomials (pp. 26–33); M. A. H. MacCallum, Symbolic computation in relativity theory (pp. 34–43); Wen-tsun Wu [Wen Jun Wu], A zero structure theorem for polynomial-equations-solving and its applications (abstract) (p. 44); S. A. Abramov, Some algorithms of rational function algebra (pp. 45–47); Johannes Buchmann and Michael Pohst, Computing a lattice basis from a system of generating vectors (pp. 54–63); Mark P. W. Mutrie, Bruce W. Char and Richard H. Bartels, Expression optimization using high-level knowledge (pp. 64–70); R. G. Cowell and F. J. Wright, CATFACT: computer algebraic tools for applications of catastrophe theory (pp. 71–80); V. P. Gerdt, A. B. Shabat, S. I. Svinolupov and A. Yu. Zharkov, Computer algebra application for investigating integrability of nonlinear evolution systems (pp. 81–92).

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{The papers of mathematical interest that appear to be in final form are being reviewed individually.}

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