

LIST OF SCIENTIFIC PUBLICATIONS

Erhard Aichinger

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1. E. Aichinger. Local interpolation near-rings as a frame-work for the density theorems. In *Contributions to General Algebra 9*, 27-36. Verlag Hölder-Pichler-Tempsky, Wien - Verlag B.G. Teubner, Stuttgart, 1995.
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5. E. Aichinger and C. Nöbauer. The cardinalities of the endomorphism near-rings $I(G)$, $A(G)$, and $E(G)$ for all groups G with $|G| \leq 31$. In *Nearrings, nearfields and K-loops (Hamburg, 1995)*, pages 175-178. Kluwer Acad. Publ., Dordrecht, 1997.
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7. E. Aichinger. On Hagemann's and Herrmann's characterization of strictly affine complete algebras. *Algebra Universalis*, 44:105-121, 2000.
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9. E. Aichinger, J. Ecker, and C. Nöbauer. The use of computers in near-ring theory. In *Near-rings and Near-fields. Proceedings of the Conference on Near-rings and Near-fields, Stellenbosch, South Africa, 1997*, pages 35-41. Kluwer Academic Publisher, Dordrecht, 2001.
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13. E. Aichinger. The polynomial functions on certain semidirect products of groups. *Acta Universitatis Szegediensis. Acta Scientiarum Mathematicarum*, 68(1-2):63-81, 2002.

14. E. Aichinger and G. F. Pilz. A survey on polynomials and polynomial and compatible functions. In *Proceedings of the Third International Algebra Conference (Tainan, 2002)*, pages 1-16, Kluwer Acad. Publ., Dordrecht, 2003.
15. E. Aichinger and P. Mayr. Polynomial functions and endomorphism near-rings on certain linear groups. *Communications in Algebra*, 31(11): 5627-5651, 2003.
16. E. Aichinger and P. M. Idziak. Polynomial interpolation in expanded groups. *Journal of Algebra*, 271(1):65-107, 2004.
17. E. Aichinger and M. Farag. On when the multiplicative center of a near-ring is a subnear-ring. *Aequationes Mathematicae*, 68:46-59, 2004.
18. E. Aichinger, D. Mašulović, R. Pöschel, and J. S. Wilson. Completeness for concrete near-rings. *Journal of Algebra*, 279(1):61-78, 2004.
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26. E. Aichinger, G. A. Cannon, J. Ecker, L. Kabza, and K. Neuerburg. Some near-rings in which all ideals are intersections of Noetherian quotients. *Rocky Mountain Journal of Mathematics*, 38: 713-726, 2008.
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28. E. Aichinger and N. Mudrinski. Polynomial clones of Mal'cev algebras with small congruence lattices, *Acta Mathematica Hungarica*, 126(4): 315-333, 2010.
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42. E. Aichinger, R. Yatchak. SONATA: a GAP tool for nearing computations. *ACM Commun. Comput. Algebra*, 50 (2016), 89-92.
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52. E. Aichinger and J. Moosbauer. Chevalley-Warning type results on abelian groups, *Journal of Algebra* 569 (2021), 30–66.
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55. E. Aichinger and S. Grünbacher. The complexity of checking quasi-identities over finite algebras with a Mal’cev term. *40th International Symposium on Theoretical Aspects of Computer Science (STACS 2023)*, in *LIPICs. Leibniz International Proceedings in Informatics, Vol. 254*, 4:1–4:12, 2023.
56. E. Aichinger, S. Grünbacher, and P. Hametner. *Zero testing and equation solving for sparse polynomials on rectangular domains*, *Finite Fields Appl.* **95** (2024), Paper No. 102379, 17 pp.
57. B. Rossi and E. Aichinger. *On NP-complete search problems on finite algebras*, 2024 IEEE 54th International Symposium on Multiple-Valued Logic—ISMVL 2024, IEEE Computer Soc., Los Alamitos, CA, 2024, pp. 131–136.
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60. E. Aichinger, J. R. Schmitt, and H. Zhan. Structured and Punctured Nullstellensätze. *The Electronic Journal of Combinatorics* **33(3)** (2026), #P3.36, <https://doi.org/10.37236/15104>