## Retracts of Laurent polynomial rings

Takanori Nagamine

National Institute of Technology, Oyama College E-mail: t.nagamine14@oyama-ct.ac.jp

Let R be an integral domain and A, B be R-algebras. A is called a retract of B if there exists an ideal I of B such that B is the direct sum of A and I. In this talk, we consider retracts of Laurent polynomial rings over R in n variables. We show that such retract is isomorphic to a Laurent polynomial ring over R.

## References

- [1] S.M. Bhatwadekar and N. Gupta, The structure of a Laurent polynomial fibration in n variables, J. Algebra 353 (2012), 142-157.
- [2] S. Chakraborty, N. Dasgupta, A.K. Dutta and N. Gupta, Some results on retracts of polynomial rings, J. Algebra 567 (2021), 243-268.
- [3] D. Costa, Retracts of polynomial rings, J. Algebra 44 (1977) 492-502.
- [4] T. Nagamine, A note on retracts of polynomial rings in three variables, J. Algebra 534 (2019), 339-343.
- [5] T. Nagamine, Retracts of Laurent polynomial rings, arXiv:2301.12681.