Artin-Schreier defect extensions and Strong Monomialization

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Inspired by Kuhlmann's classification of Artin-Schreier defect extensions as dependent or independent [2], and based on our work on Cutkosky and Piltant's example [1] that fails Strong Monomialization, and on Temkins' work [3], we present partial results supporting the belief that the dependent Artin-Schreier defect extensions are the more "harmful" ones, in the sense of failing Cutkosky's Strong Monomialization.

References

[1] CUTKOSKY, S. D. AND PILTANT, O.. Ramification of valuations. *Adv. Math* **183** (2004), 1-79.

[2] KUHLMANN, F.-V.. A classification of Artin-Schreier defect extensions and characterizations of defectless fields, to appear in Illinois J. Math.

[3] Temkin, M., *Inseparable local uniformization*, submitted.