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Belgium. Quantifier elimination in valued Ore modules.

We consider valued fields with a distinguished isometry or contractive derivation, as valued modules over the Ore ring of difference operators. This amounts to study linear difference/differential equations with respect to the distinguished isometry/derivation. Under certain assumptions on the residue field, but in all characteristics, we obtain quantifier elimination in natural languages, and the absence of the independence property. (Received July 02, 2008)