

Errata for “*Rank One Solvable p -adic Differential Equations and finite Abelian Characters via Lubin-Tate Groups*”.

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There are several typos all along the text. However, I point out here *a mistake of mathematical nature* :

Proof of Theorem 2.27, page 521. The statement is correct. The proof is also globally correct up to the computation of the exact value of the image of 1 in $\mu_{p^{m+1}}$. The mistake is in the first two lines of p.522. The statement “*To show that this root is ξ_m^{-1} it is sufficient to show that $|\theta_d((1, 0, \dots, 0), a)^{-1} - \xi_m| < |\pi_m| = |\xi_m - 1|$ ” is not correct. We actually must prove the stronger inequality $< |\pi_0|$. The rest of the proof then holds only in the case $m = 0$.*

A correct proof has been given by Kiran S. Kedlaya in Section 9 of the paper “*Convergence polygons for connections on nonarchimedean curves*”, in *Nonarchimedean and Tropical Geometry*, Simons Symposia, Springer Nature, 2016, 51-98.

More precisely, the proof of K.S.Kedlaya works for $\pi_m = \xi_m - 1$, that is for the formal multiplicative (Lubin-Tate) group. The general case follows from this plus Section 2.2.2 of my paper.