Differential polynomial identities of $UT_3(F)$

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If A is an assigned algebra on a field F, the set $Der(A)$ of all its F-derivatives is a Lie algebra enveloped by $End_F(A)$. Then the polynomial relations on A taking into account the derivation action of $Der(A)$ on A generalize the notion of polynomial identity, and constitute a larger set concretely including the ordinary polynomial identities. In this talk, the differential polynomial identities of $A = UT_3(F)$ under the action of the full $Der(UT_3(F))$ will be described. So far, indeed, just the differential polynomial identities of $UT_2(F)$ have been computed, and for $n \geqslant 3$, the differential polynomial identities of $UT_n(F)$ under the derivation action of the subalgebra L_2 (the 2-dimensional nonabelian Lie algebra) of $Der(UT_n(F))$ have been described. Hopefully, the description for $UT_3(F)$ may give some insight to the general problem.