

1077-12-530

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*Classification of Algebraic Subgroups of Lower Order Unipotent Algebraic Groups.* Preliminary report.

Let  $F$  be a differential field of characteristic zero and  $C$  be its field of Constants. Let  $\mathcal{U}(n, C)$  be the group of all upper triangular matrices with 1's on the main diagonal. It is well-known that under certain conditions on  $F$ , Picard-Vessiot extensions exist for the group  $\mathcal{U}(n, C)$ . In this talk we will look into one such construction of a Picard-Vessiot extension and use its structure and the Galois correspondence to classify the algebraic subgroups of  $\mathcal{U}(n, C)$  for smaller  $n$ . (Received September 06, 2011)