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Title:	Liouvillian solutions of first order nonlinear differential equations
Authors:	Srinivasan, V.R. (/jspui/browse?type=author&value=Srinivasan%2C+V.R.)
Keywords:	Liouvillian nonlinear differential equations
Issue Date:	2017
Publisher:	Science Direct
Citation:	Journal of Pure and Applied Algebra, 221 (2)
Abstract:	Let k be a differential field of characteristic zero and E be a liouvillian extension of k . For any differential subfield K intermediate to E and k , we prove that there is an element in the set satisfying a linear homogeneous differential equation over k . We apply our results to study liouvillian solutions of first order nonlinear differential equations and provide generalisations and new proofs for several results of M. Singer and M. Rosenlicht on this topic.
URI:	https://www.sciencedirect.com/science/article/pii/S0022404916300986 (https://www.sciencedirect.com/science/article/pii/S0022404916300986) http://hdl.handle.net/123456789/2697 (http://hdl.handle.net/123456789/2697)
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