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Gevrey solvability for semilinear partial differential equations 1-13

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E. Thandapani and M. Maria Susai Manuel

ON SOME CLASSES OF SOLUTIONS OF A NONLINEAR SECOND ORDER DIFFERENCE EQUATION 95-113

Abstract: The auther consider the difference equation

$$\Delta(a_n \Delta x_n) + q_n f(x_n + 1) = 0, n = 0, 1, 2, \dots$$
(*)

where $a_n > 0, q_n > 0$ for all $n \ge 0$ and $f : \mathbf{R} \longrightarrow \mathbf{R}$ is continuous such that uf(u) > 0 for $u \ne 0$. Dividing the solutions of (*) into several classes, the authers obtain conditions for the existance and non-existance of solutions in these classes.

K. R. Nagarajan and T. Soundararajan

On the module of 1-foram on a differentiable manifold and parallelizable manifolds 115-129

> **Abstract:** Let $A^1(M)$ be the module over $C^{\infty}(M)$ of all smooth 1- forms on a differentiable mainfold M. Then the following condition are equivalent: $(1)A^1(M)$ is countably generated $(2)A^1(M)$ is finitely generated (3)M is paracompact. It is also prove that M will be parallelizable if and only if $A^1(M)$ is a free module.

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