

[Tesaříková, Eva](#)

**To the theory of central dispersions for the linear differential equations  $y'' = q(t)y$  of a finite type-special.** (English) [Zbl 0708.34011](#)

[Acta Univ. Palacki. Olomuc., Fac. Rerum Nat. 88, Math. 26, 95-130 \(1987\).](#)

The author presents a certain generalization of the basic concepts involved in Borůvka's theory of central dispersions for the differential equation  $y'' = q(t)y$  on an interval  $(a,b)$  with  $-\infty \leq a < b \leq +\infty$ . She introduces special central dispersions  $\phi_n(t)$  and  $\psi_n(t)$  of first and second kind with arbitrary index  $n$  and studies certain algebraic properties of the sets  $G^{(1)}$  and  $G^{(2)}$  which these functions constitute. Introducing still another two kinds of dispersions she obtains finally the set  $\Gamma = G^{(1)} \cup G^{(2)} \cup G^{(3)} \cup G^{(4)}$  of special central dispersions and shows that  $\Gamma$  consists of two finite cyclic groups and two finite sets.

Reviewer: [L.Janos](#)

**MSC:**

[34A30](#) Linear ordinary differential equations and systems

Cited in **1** Review  
Cited in **6** Documents

**Keywords:**

[second order differential equation](#); [central dispersions](#); [finite cyclic groups](#)

**Full Text:** [EuDML](#)

**References:**

- [1] Borůvka O.: Lineare Differentialtransformationen 2.Ordnung. VEB OVW, Berlin 1967. · [Zbl 0153.11201](#)
- [2] Laitoch M.: To the theory of linear difference equations. Acta Univ. Palackianae Olomucensis (Olomouc), Fac. Rer. Nat. 79 (1984). · [Zbl 0586.39002](#)

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.