

OBSAH

1	INTRODUCTION	5
1.1	Objectives of the thesis	5
1.2	The derivation of the Θ -method for linear DDEs	6
2	MAIN RESULTS	7
2.1	The asymptotic behaviour of the Θ -method for the nonautonomous pantograph equation	7
2.2	The asymptotic analysis of the Θ -method for the equation (2.1) with a general delay	8
2.3	The asymptotic analysis of the Θ -method for the equation (2.1) with several delays	11
2.4	The asymptotic analysis of the Θ -method for the equation (2.1) with a forcing term	12
2.5	Stability analysis of the Euler formula for the pantograph equation	13
3	SOME CONSEQUENCES AND FINAL REMARKS	16
3.1	The asymptotic estimate for the exact and discretized pantograph equation.	17
3.2	The comparison with other asymptotic estimates for the Θ -method discretization of (3.1)	18
3.3	Conclusion	21
	AUTOROVO CV	25
	ABSTRACT	26