

ON THE MEROMORPHIC SOLUTIONS OF LINEAR DIFFERENTIAL EQUATIONS

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摘要 In this paper, we investigate the growth of meromorphic solutions of higher order linear differential equation $f^{(k)} + A_{k-1}(z)e^{P_{k-1}(z)}f^{(k-1)} + \dots + A_1(z)e^{P_1(z)}f' + A_0(z)e^{P_0(z)}f = 0$ ($k \geq 2$), where $P_j(z)$ ($j=0,1,\dots,k-1$) are nonconstant polynomials such that $\deg P_j = n$ ($j=0,1,\dots,k-1$) and $A_j(z)$ ($\not\equiv 0$) ($j=0,1,\dots,k-1$) are meromorphic functions with order $\rho(A_j)$

关键词 [Linear differential equations](#) [meromorphic solutions](#) [order of growth](#)

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Abstract In this paper, we investigate the growth of meromorphic solutions of higher order linear differential equation $f^{(k)} + A_{k-1}(z)e^{P_{k-1}(z)}f^{(k-1)} + \dots + A_1(z)e^{P_1(z)}f' + A_0(z)e^{P_0(z)}f = 0$ ($k \geq 2$), where $P_j(z)$ ($j=0,1,\dots,k-1$) are nonconstant polynomials such that $\deg P_j = n$ ($j=0,1,\dots,k-1$) and $A_j(z)$ ($\not\equiv 0$) ($j=0,1,\dots,k-1$) are meromorphic functions with order $\rho(A_j)$

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