[Metni yazın]

Schwarz problem for higher-order equations in a polydisc

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Abstract: In this presentation, we discuss the Schwarz boundary value problem for higher order linear complex differential equations in the unit polydisc. Firstly we state the results obtained in $\mathbb{C}$ (see for example [1]). Secondly the integral representation for functions in $\mathbb{C}^n$[2,3,4] is improved. Then we give the solution of the model equation with homogeneous Schwarz conditions posed in a polydisc, which enables us to define an integral operator. Thus we can convert the linear complex differential equations into an integral equation. The solution is obtained via Fredholm theory. .

Keywords: Schwarz problem, Polydisc,

P.S: This is a joint work with Umit Aksoy; Atilim University, Department of Mathematics, Ankara, Turkey

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