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THEORY OF SUPERORDINATIONS FOR SEVERAL COMPLEX VARIABLES

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Abstract. Let D be any set of $\mathbb{C}^n$, let p be holomorphic in the unit ball B^n and let $\varphi : \mathbb{C}^n \times \mathbb{C}^n \times B^n \to \mathbb{C}^n$. In this article we consider the problem of determining properties of functions p that satisfy the superordination

$$D \subset \left\{ \varphi \left(p(\zeta), [(Dp(\zeta))^*]^{-1}(\zeta); \zeta \right) : \zeta \in B^n \right\}.$$

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