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# ON DEFECT RELATIONS OF MOVING HYPERPLANES

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## § 1. Introduction

The defect relation $\sum_{j=1}^{q} \delta(f, H_j) \leq n + 1$ gives the best-possible estimate, where $f$ is a linearly non-degenerate holomorphic curve in $P^n(C)$ and $H_1, \cdots, H_q$ are hyperplanes in $P^n(C)$ which are in general position. However, the case of moving hyperplanes has ever got only $n(n + 1)$ instead of $n + 1$ (Stoll [4]) and it has not yet been known whether this bound is best-possible or not. In this paper we shall give some particular cases which have the bound $n + 1$.

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## § 2. Holomorphic curves and moving hyperplanes

In this paper, we fix one homogeneous coordinate system of the $n$-dimensional complex projective space $P^n(C)$ and denote it by the notation $w = (w_0 : \cdots : w_n)$.

A hyperplane $H$ in $P^n(C)$ is an $(n - 1)$-dimensional projective subspace of $P^n(C)$, i.e., it is given by $H = \{w \in P^n(C) \mid \sum_{j=0}^{n} a_j w_j = 0\}$, where $(a_0, \cdots, a_n) \in C^{n+1} - \{0\}$. We call the vector $(a_0, \cdots, a_n)$ a representation of $H$. Let $H_j$ be hyperplanes in $P^n(C)$ with representations $a^j = (a_0^j, \cdots, a_n^j)$ $(j = 1, \cdots, q)$. If any $\min(q, n + 1)$ elements of $a^1, \cdots, a^q$ are linearly independent over $C$, $H_1, \cdots, H_q$ are said to be in general position.

We call a holomorphic mapping $f: C \to P^n(C)$ a holomorphic curve in $P^n(C)$. A representation of $f$ is a holomorphic mapping $\tilde{f} = (f_0, \cdots, f_n)$: $C \to C^{n+1}$ which satisfies $\tilde{f}^{-1}(0) \neq C$ and $f(z) = (f_0(z) : \cdots : f_n(z))$ for all $z \in C - \tilde{f}^{-1}(0)$. Then we write $f = (f_0 : \cdots : f_n)$. If $\tilde{f}^{-1}(0) = \emptyset$, then the representation $\tilde{f}$ is said to be reduced.

DEFINITION 2.1. A moving hyperplane $H^M$ in $P^n(C)$ is a mapping of

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