

ERRATA

CORRECTION TO “IDEAL KAEHLERIAN SLANT SUBMANIFOLDS IN COMPLEX SPACE FORMS”

By ION MIHAI

Volume 35, Number 3, 2005

pages 950–952

We state a theorem of characterization of ideal Kaehlerian slant submanifolds in the complex Euclidean space.

Theorem 3.5. *Let M be an n -dimensional Kaehlerian slant submanifold of the complex Euclidean space \mathbf{C}^n such that $\text{Im } h_p \neq T_p^\perp M$, at each point $p \in M$. Then M is ideal if and only if M is a ruled minimal submanifold.*

PROOF. Let M be an n -dimensional ideal Kaehlerian slant submanifold in \mathbf{C}^n . Then, by Theorem 2.1, M is a minimal submanifold.

Let U_l denote the interior of the subset consisting of points in M such that the relative null space at p has dimension l . Since $\text{Im } h_p \neq T_p^\perp M$, at each point $p \in M$, it follows that $U_l \neq \emptyset$, for some integer $1 \leq l \leq n$. By applying Codazzi equation, it is easily seen that $\text{Ker } h$ is integrable on U_l and each leaf of $(\text{Ker } h)|_{U_l}$ is an l -dimensional totally geodesic submanifold of \mathbf{C}^n . Thus, M contains a geodesic of \mathbf{C}^n through each point $p \in U_l$. Since M is the union of the closure of all U_l , we conclude by continuity that M contains a geodesic of the ambient space through each point in M . Therefore, M is a ruled minimal submanifold.

The converse statement is obvious. \square

Received by the editors on June 13, 2005.

Copyright ©2005 Rocky Mountain Mathematics Consortium