

**Gauss Map of Real Hypersurfaces in Complex Projective
Space and Submanifolds in Complex Two-Plane
Grassmannian**

Makoto Kimura

Ibaraki University, Department of Mathematics, Japan
kmakoto@mx.ibaraki.ac.jp

ABSTRACT

We define Gauss map g of real hypersurface M in complex projective space to complex 2-plane Grassmannian. If M is Hopf, then $g(M)$ is a totally complex submanifold with respect to Q.K. structure. Converse construction is given by using twistor fibration.