1072-53-213   **Thomas A Ivey***, Department of Mathematics, College of Charleston, 66 George St., Charleston, SC 29424. *Austere Hypersurfaces in Complex Projective Space.* Preliminary report.

A submanifold M for in Euclidean space $\mathbb{R}^n$ is austere if all odd-degree symmetric polynomials in the eigenvalues of the second fundamental form (in any normal direction) vanish. Harvey and Lawson showed that this condition is necessary and sufficient for the normal bundle of M to be special Lagrangian in $T\mathbb{R}^n \cong \mathbb{C}^n$. A similar result was proved by Karigiannis and Min-Oo for S^n, with TS^n carrying a Calibi-Yau metric due to Stenzel.

In this preliminary report we investigate conditions under which the normal bundle of a submanifold in $\mathbb{C}P^n$ is special Lagrangian with respect to the Stenzel metric on $T\mathbb{C}P^n$. (Received June 28, 2011)