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Thomas A. Ivey* (iveyt@cofc.edu) and **Patrick J. Ryan**. *Special Hypersurfaces in CP^2 and CH^2* .

There are many special types of real hypersurfaces in complex space forms, including homogeneous hypersurfaces and pseudo-Einstein hypersurfaces. Many classification results for these hypersurfaces rely on arguments that work when the ambient (complex) dimension is at least three. In this talk, we present several complementary results for ambient dimension two, and outline their derivation using the technology of exterior differential systems. For example, we find that pseudo-Einstein hypersurfaces are either isoparametric or fall into one of two families which each depend on two functions of one variable. (Received December 07, 2005)