1061-47-66 **Ronald G. Douglas*** (rdouglas@math.tamu.edu), Department of Mathematics, Texas A & M University, TAMU-3368, College Station, TX 77843=3368, and **Yun-Su Kim**, **Hyun Kwon** and **Jaydeb Sarkar**. *Canonical Models Over Other Kernel Function Hilbert Spaces.*

One can view the canonical model theory for contraction operators in terms of quotient Hilbert modules, where the building blocks are taken to be vector-valued Hardy spaces over the unit disk. Such canonical models can be generalized by replacing the Hardy space by other kernel function Hilbert spaces such as the Bergman or weighted Bergman spaces. Using a geometrical approach and the language of Hilbert modules, the authors investigate unitary equivalence and similarity questions for such models showing that, somewhat surprisingly, the equivalence of such models over the same vector-valued kernel function Hilbert space does not depend on the kernel function Hilbert space used. (Received April 02, 2010)