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M. Zuhair Nashed* (zuhair.nashed@ucf.edu), Department of Mathematics, University of Central Florida, Orlando, FL 32816-1346. *Applications of Sampling Expansions in Inverse Problems and Moment Problems.*

We discuss preliminary ideas on the use of sampling expansions in reproducing kernel Hilbert space in approximations of linear integral equations and operator equations. We also consider moment discretization of operator equations and reconstruction of a function from its moments in this context. (Received September 17, 2014)