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**Ahmed I Zayed\*** (azayed@depaul.edu). *On Fractional Transforms and Sampling*. Preliminary report.

Sampling of integral transforms, such as the Fourier, Hankel, and Legendre integral transforms, has been studied extensively either directly or indirectly through the initial-value problems which the kernels of the transforms satisfy. Some of these transforms have recently been extended to fractional orders. The kernels of some of these fractional transforms satisfy initial-value problems involving fractional order differential equations. In this talk, we discuss some of these fractional transforms and their sampling theorems. (Received August 03, 2014)