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Lesley A. Ward* (lesley.ward@unisa.edu.au). *Connections between Continuous and Dyadic Function Spaces on Spaces of Homogeneous Type.*

The function spaces of harmonic analysis, such as BMO, VMO, H^1 , and the classes of A_p weights and reverse-Hölder weights, come in both continuous and dyadic flavours. We know of two types of connections between the continuous and dyadic versions of such a space: first, averaging procedures take us from the dyadic to the continuous version, and second, the continuous version can be written as an intersection (for BMO, VMO, A_p and RH_p), or a sum (for H^1), of finitely many dyadic versions. We present recent work extending these connections from the Euclidean world to the setting of spaces of homogeneous type (X, d, μ) in the sense of Coifman and Weiss, in both the one-parameter and product situations. Our results build on earlier work by Garnett, Jones, Pipher, Ward, Treil, Xiao, and Li. This is joint work with P. Chen, A. Kairema, J. Li, and M.C. Pereyra. See also the related talk in this special session by J. Li. (Received January 30, 2014)