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**Robert F Allen** and **Flavia Colonna\*** (fcolonna@gmu.edu), 4400 University Drive, Fairfax, VA 22030, and **Glenn R Easley**. *Multiplication operators on Lipschitz-type spaces over a tree.*

In recent years, the operator theory of many functional Banach spaces that arise in complex function theory has been studied extensively. However, very little has been done in a discrete setting. An important class of operators to be discussed in this talk is the *multiplication operators*

$$M_\psi(f) = \psi f,$$

where  $\psi$  is a function defined on an infinite tree  $T$  and  $f$  belongs to a functional Banach space with domain  $T$ . An environment for this study is a space  $\mathcal{L}$  of Lipschitz functions on  $T$ , that is, the functions  $f$  satisfying

$$|f(v) - f(w)| \leq C d(v, w), \quad v, w \in T,$$

for some  $C > 0$ , where  $d(v, w)$  is the number of edges in the unique geodesic path from  $v$  to  $w$ . The space  $\mathcal{L}$  may be considered as a discretization of the familiar Bloch space. Characterizations on the boundedness and compactness of the operator  $M_\psi$  as well as operator norm and essential norm estimates and a description of the spectrum will be given. The multiplication operators on a class of weighted Lipschitz spaces over a tree will be also considered. (Received September 11, 2010)