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**Erblin Mehmetaj\*** ([erblinm@gwu.edu](mailto:erblinm@gwu.edu)), Department of Mathematics, 2115 G Street, NW, Washington, DC 20052. *Generalized Continued Fraction Expansions*. Preliminary report.

I will consider generalized continued fraction expansions generated via the map  $T_r : [0, 1) \rightarrow [0, 1)$  defined by

$$T_r(x) = \frac{r}{x} - \left\lfloor \frac{r}{x} \right\rfloor \text{ if } x \neq 0 \text{ and } T_r(0) = 0.$$

We call these expansions  $r$ -expansions. Every real number has an  $r$ -expansion. Also, for an  $r$ -expansion not all sequences of digits  $(a_1, a_2, \dots)$  are admissible. So, I will show that a sequence  $(a_1, a_2, \dots)$  is admissible if and only if the sequence itself and all of its shifts are alternating-lexicographically less than the  $r$ -expansion of 1. (Received January 28, 2014)