

ABSTRACT. A *pseudocharacter* of a semigroup  $S$  is a real function  $\varphi$  on  $S$  satisfying the following conditions.

- 1) The set  $\{\varphi(xy) - \varphi(x) - \varphi(y); x, y \in S\}$  is bounded.
- 2) For  $x \in S$  and  $n \in \mathbf{N}$  (and  $n \in \mathbf{Z}$  if  $S$  is a group),

$$\varphi(x^n) = n\varphi(x).$$

A description of the space of pseudocharacters on some extensions of free groups is given.