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Title: Shift radix systems for Gaussian integers and Pethő's Loudspeaker

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Recently, Akiyama *et al.* introduced so-called shift radix systems. These simple dynamical systems form a common generalization of several well-known notions of number systems like beta numeration and canonical number systems. In the present paper we generalize shift radix systems as follows: for $(r_1, \ldots, r_d) \in \mathbb{C}^d$ we study mappings $\mathbb{Z}[\mathrm{i}]^d \to \mathbb{Z}[\mathrm{i}]^d$ given by

$$(x_1, \ldots, x_d) \mapsto (x_2, \ldots, x_d, -\lfloor r_1 x_1 + \cdots + r_d x_d \rfloor).$$

where for $x \in \mathbb{C}$ we set $\lfloor x \rfloor = \lfloor \Re x \rfloor + \mathrm{i} \lfloor \Im x \rfloor$. We study basic dynamical properties of this class of mappings and relate them to known notions of number systems.

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