

## Characteristic of tiling generated by a root of polynomial

$$P(x) = x^4 - 3x^3 + x^2 - 2x - 1$$

---

ARBEN BAUSHI

*Department of Mathematics, Faculty of Technical Sciences  
"Ismaïl Qemali" University, Vlorë, Albania  
baushiarben@gmail.com*

There are different authors that have extensive studies on the tiling generated by Pisot numbers related to Pisot of degree 3. The connection of Pisot dual tilings play an important role on  $\beta$ - expansion, it is often referred to Rényi as the first occurrence of  $\beta$ - expansions. The theory of  $\beta$ - expansion create a link between symbolic dynamics and a part of number theory. There exists a Pisot whose dual tiles are disconnected. Let  $\beta$  be a Pisot which is the root of equation  $x^4 - 3x^3 + x^2 - 2x - 1 = 0$ . At least one of the tiles is not connected. We try to give same property for the tiling generated by  $\beta$ .