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More on Roli's Cube

Actually *Roli's cube* \mathcal{R} isn't a cube, although it does share the 1-skeleton of a 4-cube. First described by Javier (Roli) Bracho, Isabel Hubbard and Daniel Pellicer in 2014, \mathcal{R} is a chiral 4-polytope of type $\{8, 3, 3\}$, faithfully realized in \mathbb{R}^4 (a situation earlier thought to be impossible). Of course, Roli didn't himself name \mathcal{R} ; but the eponym is pleasing and has taken hold. Today I will give some new insights into \mathcal{R} , touching on its regular covers, connections to the Möbius-Kantor configuration, and other more abstract things.

This work was generously supported at Universidad Nacional Autónoma de México (Morelia) by PAPIIT-UNAM grant #IN100518