On symmetries of sections of convex bodies

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Abstract: Christos Saroglou and Sergii Myroshnychenko proved [1] that a convex origin-symmetric body in \mathbb{R}^n , $n \geq 3$, with central sections having symmetries of a cube, must be a Euclidean ball. We will discuss several results on floating bodies related to this problem.

References

[1] Sergii Myroshnychenko, Dmitry Ryabogin and Christos Saroglou, Star bodies with completely symmetric sections, Int. Math. Res. Not. IMRN 2019, no. 10, 3015–3031.