ON THE PLANAR HOMOTHETY CONJECTURE

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(Joint work with M. Alfonseca, F. Nazarov, D. Ryabogin, and V. Yaskin)

We will present a positive partial result on the planar homothety conjecture stating that the curve of flotation is homothetic to the boundary of the convex body K for some arbitrary density of the body in $(0, |K|/2)$ if and only if the convex body is an ellipse.