

Smale's 6th problem for generic masses

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We give a new method to attempt to prove that, for a given n , there are finitely many equivalence classes of planar central configurations in the Newtonian n -body problem for generic masses. The human part of the proof relies on tropical geometry. The crux of our technique is in a computation that we have completed for n up to 5, thus confirming the celebrated result of Albouy and Kaloshin.

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